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ABSTRACT

This document is the 1996 update to a 1994 Comprehensive Plan for Workforce Training and Education in Washington State. The plan focuses on collective actions that public and private sector partners need to take to have the best work force development system in the nation. The plan details how jobs are increasingly demanding higher-level skills, how workers entering the work force (who are often minorities or women) may lack those needed skills and how the education system must change in order to meet the challenge. Topics covered include the following: education reform and school-to-work transition; a customer-focused training and employment system; systemwide accountability; and public and private partnerships; and funding. The plan addresses seven overarching goals: (1) competencies--workforce possesses the skills and abilities required in the workplace; (2) employment--workforce finds employment opportunities; (3) earnings--workforce achieves a family-wage standard of living from earned income; (4) productivity--workforce is productive; (5) reduced poverty--workforce lives above poverty; (6) customer satisfaction--workforce development participants and their employers are satisfied with workforce development services and results; and (7) return on investment--workforce development programs provide returns that exceed program costs. It then suggests seven most urgently needed actions: implementation of performance management for continuous improvement throughout the workforce development system; increase the capacity of the training and education system; continue to implement school-to-work systems; vertically integrate all elements of the workforce training and education system; increase public awareness of the importance of workforce training and education issues; focus workforce training to make welfare reform work; and connect workforce training and education with economic development. (KC)

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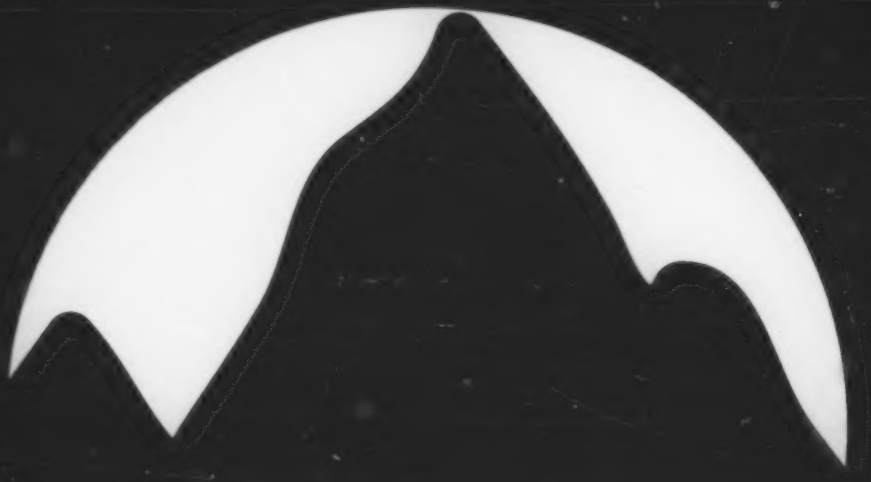

High Skills, High Wages

Washington's Comprehensive Plan for Workforce Training and Education

1996

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Washington State
Workforce Training and Education Coordinating Board

The Vision

To develop a globally competitive workforce supported by an accessible, flexible, competency-based, and technologically current training and education system.

Mission Statement

The mission of the Workforce Training and Education Coordinating Board is to actualize Washington's Workforce Vision by:

- Establishing a new workforce partnership to include active participation by leaders from labor, business, education, and government;
- Employing change to all levels of the training and education system as needed by all participants, including students, workers, employers, educators, trainers, and political leaders;
- Increasing the number of participants from traditionally underserved populations participating in training programs that are responsive to ethnic and cultural diversity;
- Increasing self-sufficiency of families by advocating for support services so that individuals access training opportunities and prepare for jobs that bring a living wage;
- Improving coordination among all programs and providers, public and private, within the state's workforce training and education system;
- Promoting training and education that is competency-based, with equal emphasis on academic and occupational skills acquisition; and
- Generating new and leveraged resources for an integrated, cost-effective, statewide training and education system.

Board Members

Betty Jane Narver
Chairperson

Gilberto Alaniz
Representing Targeted Populations

Judith Billings
State Superintendent of Public Instruction

John Carter
Representing Labor

Karen Carter
Representing Labor

Roberta Greene
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Earl Hale
Executive Director State Board for Community and Technical Colleges

Jeff Johnson
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Commissioner State Employment Security Department

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High Skills, High Wages

Washington's Comprehensive Plan for Workforce Training and Education

Workforce Training and Education Coordinating Board
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State of Washington
Mike Lowry, Governor

1996

STATE OF WASHINGTON
WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD
Building 17, Airdustrial Park, P.O. Box 43105 • Olympia, Washington 98504-3105 • (360) 753-5662 • FAX (360) 586-5862

December 1996

Governor Lowry and Members of the Legislature:

We are pleased to submit the 1996 update to "High Skills, High Wages: Washington's Comprehensive Plan for Workforce Training and Education."

Developed in response to legislative direction, this plan is built on our initial work in 1994 and suggests the next steps we need to take if our citizens and firms are to thrive in the new economy. We drew ideas from national and state research as well as practitioners and customers. We proposed policy initiatives and tested them in communities around the state. And we kept our focus on collective actions that public and private sector partners need to take to have the best workforce development system in the nation.

Our goals are clear and measurable. Personal, corporate, and public investments in workforce training and education should result in increasing competencies, employment, earnings, productivity, customer satisfaction, and return on investment and decreased poverty. The "most urgently-needed actions" we suggest are focused on making progress on these goals.

As we move forward to do the work called for in this plan, we are mindful of the high stakes involved in meeting the challenge of change. We know how much a family-wage job means to every adult worker. We know that children who don't succeed in school face a steep hill to climb to economic self-sufficiency and a sense of belonging to the larger community. We know that the new federal welfare reform legislation presents new challenges to public and private sectors alike. And, finally, we know that Washington's employers need employees who are skilled at continuous learning.

Implementing this plan will require political commitment and both public and private investment. Our success continues to depend on an unprecedented degree of collaboration among public agencies and institutions, private providers of training and education, community organizations, employers, students, unions, and workers. It will also require sustained public dialogue that engages citizens in the process of change.

We appreciate your confidence in our ability to develop *and implement* this plan, and look forward to carrying it out.

Sincerely,

Betty Jane Narver
Chairperson

Earl Hale, *Executive Director*
State Board for Community and Technical Colleges

Gilberto Alaniz
Representing Targeted Populations

Jeff Johnson
Representing Labor

Judith A. Billings
Superintendent of Public Instruction

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INTRODUCTION :

How Will Washington Work?

In the coming century, the driving force for Washington's economy will be the human mind. If we succeed in the global marketplace of the future, it will be because we invest wisely now in the human capital necessary to produce products and services that are high quality, to innovate, and to adapt to changing needs and technologies.

Our challenge is to close the dangerous gap between today's educational levels and the more demanding skill requirements of the family-wage jobs of tomorrow. And we must close the gap both for young people who will enter the workforce in years to come and for adults who are already working.

This challenge has a special urgency for those who have been pushed to the margins of the economic mainstream. New entrants to the workforce will increasingly be women, people of color, and non-English speakers—people whose talents have been underutilized in the past, but whose full participation will be essential to our future economic success.

—Continued—

Creating a highly skilled workforce requires sustained public investment. That investment will only be made when people understand the need for change and the devastating consequences of failure. And it can only be sustained when all citizens can see that the taxes they pay for training and education are producing successful citizens and a world-class workforce.

The Legislature has charged the Workforce Training and Education Coordinating Board (WTECB) with preparing a comprehensive plan to ensure that Washington develops the well-educated, multi-skilled, and flexible workforce we need to compete in the global economy.

This comprehensive plan describes the economic and demographic conditions that underlie the need for change and lays out the actions that state-level policy leaders must take to help achieve our vision of a creative, secure, and globally competitive workforce. Clearly, government alone cannot create the system we need, nor will action at the state level bring about all the necessary improvements. Businesses, labor unions, community organizations, workers, students, and educators must all be partners in the effort.

High Skills, High Wages

The Impetus for Change

A Dynamic Economy that Demands High Skills

For years, Washington's resource-based economy was able to provide high-paying jobs to workers with only a high school education. Our forests and factories provided a living wage to loggers and production workers. But traditional sources of high-wage, low-skilled work, now have limited growth prospects.

The future is not bright for those with no more than a high school education. Although Washington's economy is expected to create about 300,000 job openings for low-skilled workers between now and 2010, these won't be the kinds of jobs that helped loggers and production workers prosper. They will be low-wage jobs serving food, cleaning offices, and unloading trucks.

The greatest number of job opportunities will be in occupations that require some postsecondary education but not a *four-year degree from a college or university*. There will be 470,000 job openings for technicians, paralegals, health care workers, salespeople, and other occupations that require some formal training. By comparison, there will be 300,000 job openings for teachers, engineers, lawyers, and other professionals who need a four-year degree.

—Continued—

Employers believe that skill shortages are hurting the economy by limiting business expansion, lowering productivity, and reducing product quality.

If we can't equip our workforce with the skills to succeed in high-wage jobs, our society will become increasingly polarized into skilled "haves" and unskilled "have-nots."

"American education must reach for a new level of excellence for the most basic of reasons: our very prosperity as a nation—and the economic security and quality of each and every American family—depends on it."

Secretary of Education, Richard W. Riley, 3rd Annual State of American Education Address, February 1996.

Employers Find the Skills of Job Applicants Lacking

Employers' experiences suggest that our workforce training and education system may not produce enough qualified workers to fill jobs that require postsecondary training.

A 1995 survey by the Workforce Training and Education Coordinating Board found that 55 percent of employers had difficulty finding qualified job applicants in the last 12 months. More than 80 percent of employers who tried to find job applicants with a vocational degree or certificate from a community or technical college or private career school had difficulty finding such workers. Indeed, employers believe that skill shortages are hurting the economy by limiting business expansion, lowering productivity, and reducing product quality.

Skill shortages are contributing to another problem: a widening gap between well-educated citizens with high incomes and low-skilled citizens struggling to maintain a modest standard of living.

From 1980 to 1989, real wages for Washington workers without a high school education fell 27 percent. Wages for workers with a high school degree, but no postsecondary education, dropped 12 percent.

A Slow or Stagnating Rate of Productivity Increase

One cause of stagnating incomes is stagnating productivity growth. Productivity grew by an average of 4.1 percent per year from 1960 to 1964, ushering in steady improvement in living standards. But it slowed to 1.6 percent from 1980 to 1984, and to 1.1 percent from 1990 to 1994.

To put productivity back on the road of steady increases, we need to increase use of technology and promote the spread of high performance work organizations. High performance work organizations require high-skilled workers who can participate in decisions, operate and manage computerized machines, understand statistical process control, and contribute to cross-functional teams.

If employers can't find trained workers in Washington, they will look to other states or nations, or they will design new jobs so that high skills are less important and high wages are unnecessary. If we can't equip our workforce with the skills to succeed in high-wage jobs, our society will become increasingly polarized into skilled "haves" and unskilled "have-nots."

The Workforce

Will We Have the Skills We Need?

Two major population trends challenge our state's ability to provide skilled workers. Growth in the workforce is slowing, and an increasing percentage of new entrants to the workforce will come from populations that traditionally have received less education. Nearly 40 percent of the net additions to the workforce will be people of color, and more than half will be women.

If the supply of skilled workers is limited, Washington's future economic growth could be constrained. Shortages could develop, particularly in occupations that require technical training beyond the high school level.

To ensure an adequate supply of skilled workers, we will need to draw on those who in the past have been underrepresented in both technical training programs and the workforce at large. The combination of slower growth in the number of new workers and accelerating growth in the number of women and minorities in the workforce bring together the moral imperative for equal opportunity and the economic imperative for better educated workers.

In the decades ahead, we will not have any workers to waste. We will need to ensure that every child learns in school, that every student graduates from high school with strong basic skills and that every graduate of high school and postsecondary education has the career counseling, training, and on-the-job experience he or she needs to make a successful transition from school to work. We will need to reach out to the thousands of women and people of color, as well as to people who are disabled or economically disadvantaged and who are now underemployed or unemployed because they lack the education or job skills necessary to succeed in the workplace.

Our Workforce Training and Education System

Can We Rise to the Challenge?

Students should progress when they have mastered the material at hand, rather than when they have reached an arbitrary time limit.

Washington's workforce training and education system is diverse and complex. It encompasses more than 40 state and federal programs, hundreds of academic and technical institutions and training providers, and thousands of students, workers, and employers.

Our global competition-driven economy and the changing composition of our workforce are presenting this system with unprecedented new challenges. We need to create a seamless system of learning opportunities that starts with preschool education and continues through the entire lifespan of every citizen and worker.

Education Reform and School-to-Work Transition

Washington has begun ambitious efforts to improve the performance of our students by making fundamental changes in our approaches to education.

First, we are committed to raising our standards as we define what all students need to know and be able to do.

Second, we must use competency as the standard of student achievement. Students should progress *when they have mastered the*

What an Ideal Workforce Training and Education System Would Look Like

The ideal workforce training and education system would:

- Be customer driven—organized around the needs of students, workers, and employers;
- Be easy to find and enter, and be designed so that people can move easily among and between programs, and between programs and the workplace;
- Meet the needs of all learners, including those who have been underserved in the past because of racial, ethnic, or cultural differences; gender; disability, or learning style;
- Provide support services such as career counseling, child care and financial aid to those who need them;
- Be competency-based, so that all students are able to master the skills and knowledge they need in as much or as little time as they need to do so;
- Be staffed by people who are prepared to teach a diverse student body, and who have relationships with employers that help them stay up to date on changes in their fields;
- Be coordinated with private sector training programs, with social and other services, and with economic development strategies;
- Coordinate state goals and objectives with local discretion on how the goals can be reached;
- Be based on full partnerships between business, labor, and training and education representatives;
- Promote the dignity of work and the value of workforce training and education;
- Rely on the best labor market information, so that people acquire skills that local industries need;
- Be accountable for results, and committed to using outcome measures to continuously improve program quality.

material at hand, rather than when they have an arbitrary time limit.

Third, we must improve students' motivation and performance by linking their school work with preparation for their working future. To do this, schools must utilize career-related educational pathways that better define the connections between secondary and postsecondary education and a future of productive employment. We must increase the opportunities young people have to connect with the working world while they are still students by offering them more interaction with workplaces and working adults. And we must value and credit the lessons students learn in all environments.

Fourth, we must measure our schools' success by what happens to *all* their graduates. We must know more about how graduates fare in the many postsecondary options available to them—including baccalaureate, community and technical colleges, apprenticeships, and other training programs, and in employment.

A Customer-Focused Training and Employment System

Currently 13 state agencies administer over 40 different and frequently overlapping programs for training and related services. The complexity of these programs is compounded by insufficient coordination among and between them, both of which inhibit effectiveness. Workforce training and education programs must become less fragmented and more focused on

customers —students and other program participants, workers, and employers.

Today we are working to reduce the burden of this complexity on the customer. Many public and private service deliverers are working to align their work so they reduce duplication and improve the accessability of their programs. Washington is committed to creating a One-Stop Career Center system that will offer a wide array of services to customers as directly as possible.

Systemwide Accountability

Along with better coordination must come increased accountability for each of our workforce training and education programs. Last year, the workforce development agencies adopted a framework for systemwide accountability—Performance Management for Continuous Improvement. Performance Management for Continuous Improvement includes goals for workforce development, a system for evaluating results, and principles for continuous improvement in meeting customer needs. But Performance Management for Continuous Improvement is just beginning to be implemented. We must go forward with implementing accountability for continuous improvement throughout the workforce training system.

Public/Private Partnerships

Washington's workforce training and education system is already very much a partnership between the public and private sectors. Private employers, along with the workers they hire, are the prime beneficiaries of the system. Private sector representatives advise the system's public institutions as members of formal advisory boards. The economic imperative for a trained and productive workforce, however, demands we expand and deepen these relationships to form even closer links between the public and private sectors.

Funding

Preliminary estimates indicate that Initiative 601 will limit state general fund expenditures to a level that may be insufficient to meet the cost of ongoing services and cost-of-living adjustments. As a result, there will be little opportunity to use the general fund to implement new policies or programs, or to expand existing programs. However, other dedicated funds outside of the general fund apparently are not covered by the Initiative. Also, the Initiative does not limit revenue, only spending. Because of these features of the Initiative, advocates of additional investment may support drawing upon or creating new dedicated funds or tax incentives that could affect private sector behavior without state expenditures.

Goals for Workforce Training and Education

This plan addresses seven overarching goals. These goals are not static targets, but conditions that should be increasingly true for all people:

Competencies: Washington's workforce possesses the skills and abilities required in the workplace.

"I hear (education) talked about as a budget issue, but the real cost has nothing to do with the state budget. The real cost is not being able to compete in the future because we won't have an educated workforce."

Ron Woodard, President of The Boeing Company Airplane Group, Seattle Chamber of Commerce, September 1996.

Employment: Washington's workforce finds employment opportunities.

Earnings: Washington's workforce achieves a family-wage standard of living from earned income.

Productivity: Washington's workforce is productive.

Reduced Poverty: Washington's workforce lives above poverty.

Customer Satisfaction: Workforce development participants and their employers are satisfied with workforce development services and results.

Return on Investment: Workforce development programs provide returns that exceed program costs.

Most Urgently Needed Actions

Many changes in our attitudes and actions will be necessary to achieve the recommendations presented in this plan. To focus our efforts, we must prioritize the most crucial recommendations we have made. These should guide the agencies of the workforce training and education system in budget and policy planning. The most urgently needed actions are:

- **WTECB and the other agencies and partners of the workforce training and education system will implement Performance Management for Continuous Improvement throughout the workforce development system.** Within two years, all workforce training and education programs will have formal continuous improvement systems in place.

- **In order to match labor market demand, the capacity of the workforce training and education system must increase.** Within two years, the supply of workforce training at community and technical colleges should increase by 4,050 student FTEs. Within two years, the workforce development system must be implementing its One-Stop Career Center system. And within two years, the state must increase its support for school-to-work transition to assure greater capacity for work-related learning in the K–12 system.

- **School-to-work transition partners must continue their scheduled work to implement a system that will improve the movement of students to postsecondary training and to employment in the careers of their choosing—and back to training again, as needed.** In particular in the next two years, school-to-work transition partners will work with the State Board of Education as they define what follows the Certificate of Mastery.

- **WTECB must lead the effort to ensure that all elements of the workforce training and education system are vertically integrated.** Within two years, school-to-work transition partners in the K–12 system, those working to assure effective welfare-to-work transitions, those providing adult basic skills

training, and the JTPA system should have established clear linkages with postsecondary education and training.

- **WTECB must continue its work to increase public awareness about the importance of workforce training and education issues and initiatives.** Within two years, WTECB will have completed an initial public awareness effort to increase public understanding and support for the goals and strategies in this plan.

- **Workforce training and education agencies and partners must make welfare reform work.** Within two years, these partners must develop programs that integrate basic skills and occupational skills training with work experience so that time-limited training for those on public assistance actually will enable them to become self-supporting.

- **Workforce training and education partners must ensure firm connection between their work and economic development.** In the next two years, economic development and workforce training programs should work together to establish and implement policies that target firms applying high performance work practices—practices that enhance and engage the skills and decision-making capacity of workers.

TOMORROW'S ECONOMY:

Only the Skilled Will Be Well-Paid

Washington is moving away from a resource-based economy in which people with little formal education can find good-paying jobs. Our new economy is knowledge-based, and the fastest growing jobs in the future will be technical, professional, and managerial. The majority of family-wage jobs that will be created in Washington between now and 2010 will require some post-secondary education, but not necessarily a four-year degree.

Although most family-wage jobs will require postsecondary education, the skill levels needed for many potential new jobs in Washington's changing economy remains to be decided. Employers increasingly have a choice between creating low-wage jobs that have been deliberately designed to be low-skilled and designing high-wage, high-skilled jobs for the high performance work organizations demanded by the new economy.

Low-skilled jobs can be located anywhere there is a low-skilled labor force, and they can be low-paid. High performance work organizations can flourish only where there are high-skilled workers. If Washington wants its citizens to enjoy high-paying jobs, it must both prepare people to work in high performance organizations and encourage Washington employers to become such organizations.

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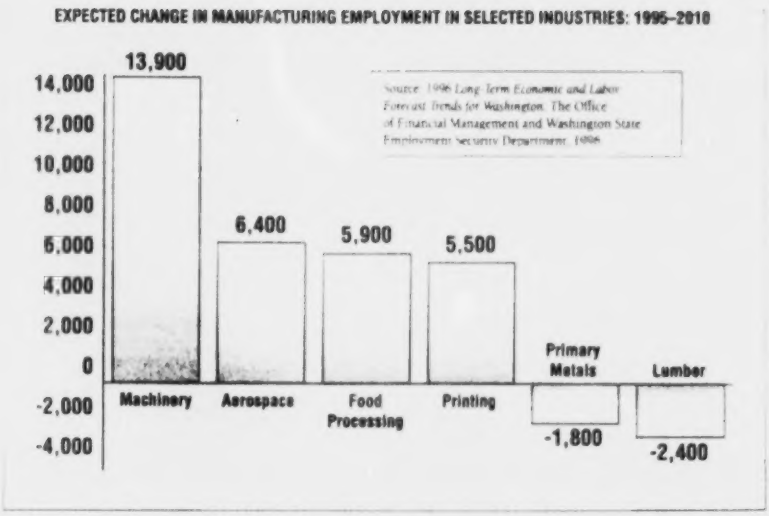
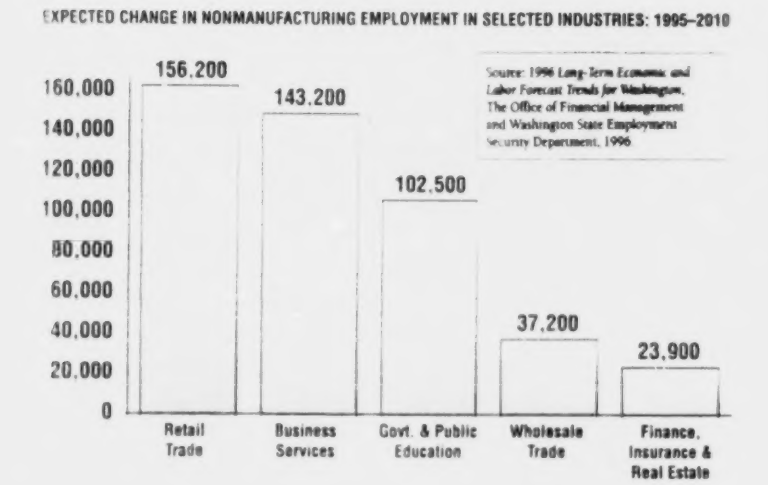


Manufacturing employment in Washington will grow in some industries and decline in others.



Employment growth in Washington's trade and service industries will far exceed growth in manufacturing employment.

Opportunities for the Low-Skilled Are Shrinking

For years, Washington's resource-based economy was able to provide high-paying jobs to workers with only a high school education. Our forests and factories provided a living wage to loggers and production workers. Now these traditional sources of high-wage, low-skilled work are either shrinking or have limited growth prospects.

The lumber and wood products industry, which once employed 61,000 people in Washington, has shrunk to about 36,000 and will continue to decline due to supply limitations and technology changes in the mills.[1] The aluminum smelting industry, another source of high-wage jobs requiring little formal education, employed 11,300 people as late as 1979. By 1994, the number had dropped to 7,400.[2] A reversal of this trend is unlikely. In 1993, the Bonneville Power Administration (BPA) reduced the amount of power available to aluminum producers and raised the price of electricity. In 1996, the variable rate schedule that provides the aluminum industry with favorable electric rates is set to expire.[3]

Agriculture is a major exception to the trend of declining employment in resource-based industries. Employment in Washington's agricultural sector grew 2,700 from 1990 to 1994.[4] However, many of these jobs are low-wage, seasonal positions.

Even a healthy aerospace industry, the Northwest's largest source of both skilled and semi-skilled manufacturing jobs, won't offset the decline in resource-based

high-wage jobs. Although the airlines are recovering from a prolonged period of low profitability and are ordering new jets, The Boeing Company is committed to building those jets with fewer people than in the early 1990s.[5] Aerospace employment hit a recent low of 83,900 in 1995. By 2010, Washington's aerospace employment is expected to grow to 90,300 jobs, but that is still 26,000 fewer than in 1990.[6]

Although some of the decline in low-skilled jobs is due to resource limitations, most can be attributed to irreversible trends toward replacing workers with machines, reengineering how work is done to take advantage of computers, tapping lower-cost sources of labor outside the U.S., and transforming low-skilled jobs into jobs that require higher skills.

In a Global Economy, Jobs Can Be Located Almost Anywhere

Washington is already aware of the advantages offered by a global economy. We sell our apples to Russia, our forest products to Japan, and our airplanes and software to the world. But as opportunities to sell to other countries have increased, so have other countries' opportunities to make the very things we sell. And it's not simply a case of using low-wage unskilled labor to mass produce inexpensive standard products. Foreign countries are increasingly able to offer highly skilled alternatives to using American workers.

Boeing is negotiating with Japanese manufacturers to produce wing parts for its new 747-x aircraft. French software technicians adapt Microsoft products for the French market. And Vancouver production workers who make Hewlett-Packard's hugely successful inkjet printers have highly skilled counterparts in Singapore and Spain.[7]

With advances in telecommunications, even complex service work can now be performed overseas. In the south India city of Bangalore, engineers provide on-line technical support for American programmers using Windows 95-based products. Microsoft is only one of several companies that is contracting for software services in India. General Motors, IBM, Citibank, and Nordstrom also use Indian workers for software services.[8]

Where the Jobs Will Be in 2010

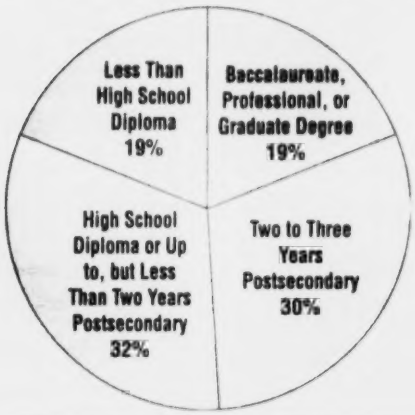
The future is not bright for those with only a high school education. Although Washington's economy is expected to have about 300,000 job openings for low-skilled workers between now and 2010,[9] these won't be the kinds of jobs that helped loggers and production workers prosper. They will be low-wage jobs serving food, cleaning offices, and unloading trucks.

The greatest number of new family-wage job opportunities will be in occupations that require some postsecondary education, but not a *four-year degree from a college or university*. There will be approximately 470,000 job openings for technicians, paralegals, health care workers, salespeople, and other occupations that require two to three years of postsecondary education. By comparison, there will be 300,000 job

"Technology and globalization work in your favor if you have the right skills; they work against you if you don't."

Secretary of Labor, Robert Reich, "Seven Modest Steps Toward More Equality," *Harvard Business Review*, Sept./Oct. 1996.

TRAINING REQUIRED FOR JOB OPENINGS BETWEEN 1995–2010

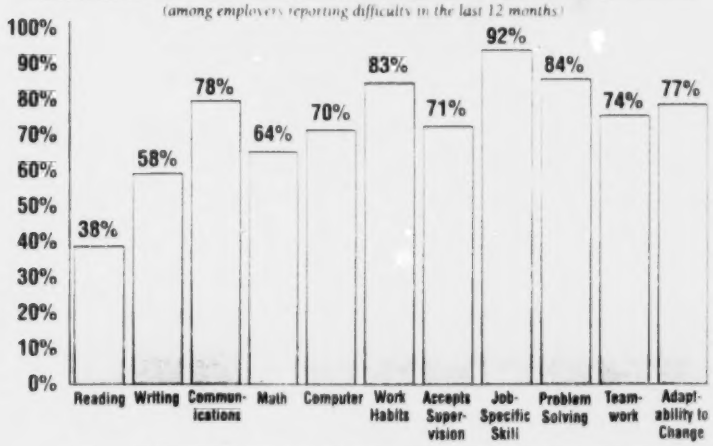

Less Than High School Diploma 19%
Baccalaureate, Professional, or Graduate Degree 19%
High School Diploma or Up to, but Less Than Two Years Postsecondary 32%
Two to Three Years Postsecondary 30%

Source: Occupational Outlook, Washington State Employment Security Department, 1996.

More job openings require two or three years of postsecondary training than require a four-year degree.

PERCENTAGE OF EMPLOYERS HAVING DIFFICULTY FINDING APPLICANTS WITH SPECIFIC SKILLS

(among employers reporting difficulty in the last 12 months)



Source: Workforce Training Results, Workforce Training and Education Coordinating Board, 1996.

Employers have difficulty finding the workplace skills they need.

openings for teachers, engineers, lawyers, and other professionals who need a four-year degree.

The table on the next page shows 16 occupational areas that require at least two years of postsecondary education or training and that are each expected to generate at least 10,000 job openings in Washington in the next 15 years.

Employers Find the Skills of Job Applicants Lacking

Does our educational system produce enough qualified workers to fill these jobs? The answer is no, and the shortage is most severe in the supply of workers with technical training.

A survey of 1,900 employers by the Workforce Training and Education Coordinating Board found that 55 percent of employers had difficulty finding qualified job applicants in the last 12 months.[10] Among employers who had difficulty, 92 percent had difficulty finding workers with job-specific skills. This was more than the percent who had difficulty finding any other type of skills, including the basic skills of reading, writing, and math.

Similarly, employers are having a hard time finding workers with postsecondary training. More than 80 percent of employers who tried to find job applicants with a vocational certificate or degree from a community or technical college, or a private career school had difficulty finding such workers. This was more than the percentage of employers

21

Occupations Expected to Have 10,000 or More Job Openings in Washington: 1995–2010

(occupations that require at least two years of postsecondary education)

Occupational Areas Requiring at Least Two Years but Less Than Four Years of Postsecondary Education

Managers and Administrators	27,225
(theater managers, project directors)	
Firstline Supervisors, Sales	20,430
(wholesalers, retailers, sales supervisors)	
Carpenters	19,725
Professional and Technical Occupations	18,540
(research assistants, technicians)	
Firstline Supervisors, Clerical	17,505
(customer service managers, word processing supervisors)	
Cooks, Restaurant	14,820
(bakers, chefs)	
Maintenance Repairers, General Utility	14,430
(fire fighting equipment specialists, industrial/building maintenance repairers)	
Sales Representatives, Excluding Retail	13,740
(sales representatives in oil and textiles, manufacturers' representatives)	
Automotive Mechanics	11,880
(car, bus, and truck mechanics; diesel engine specialists)	

Occupational Areas Requiring a Baccalaureate or Graduate Degree

Registered Nurses	24,750
General Managers and Top Executives	22,770
(school presidents and superintendents, directors in civil services, business managers)	
Secondary School Teachers	20,100
System Analysts	19,635
(program analysts, system programmers, information scientists)	
Computer Engineers	17,655
(software engineers, hardware analysts)	
Elementary Teachers	15,180

Source: *Occupational Outlook*, Washington State Employment Security Department, 1996.

who had difficulty finding workers with any other type of educational credential.

"In identifying the needs for our new plant, we identified one of the most important as a skilled workforce."

Larry Ring, Plant Manager, J.R. Simplot Co., testifying September 5, 1996, in Yakima at the Workforce Training and Education Coordinating Board hearing on the comprehensive plan.

There are about 28,000 net job openings per year for workers with two or three years of postsecondary training. Yet, the state's two-year colleges and private career schools produce only 21,000 such graduates per year. Even adding people who move to Washington from other states, there is still a shortage of about 3,600 workers per year who have completed postsecondary training.[11]

Worse, employers believe skill shortages are hurting the economy by lowering productivity, reducing product quality, and limiting output or sales.[12]

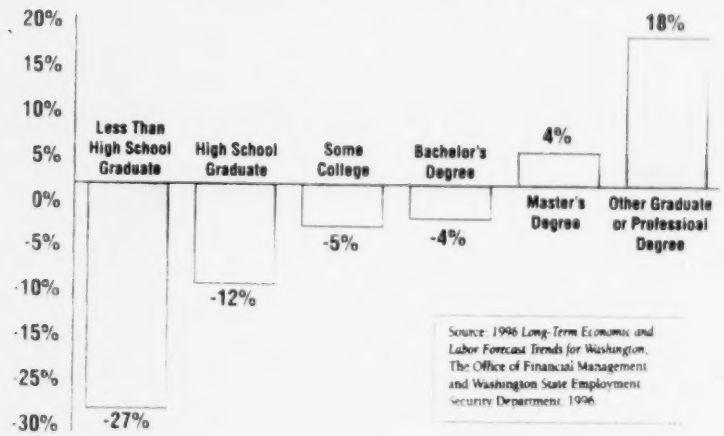
An Increasing Gap Between the Haves and Have-Nots

Skill shortages are also contributing to another problem: a widening gap between well-educated citizens with high incomes and low-skilled citizens who are struggling to maintain a modest standard of living. For many Americans, living standards and quality of life have deteriorated. Statewide, real average wages declined by 6.4 percent from 1980–89.[13] There has been some improvement in Washington since 1988; average real wages have actually increased. But in 1994, average annual real wages were still $797 below their 1979 level.[14]

The effect of this drop has been moderated somewhat by increases in family income brought on by the entry of more women into the workforce. And the economy as a whole grew as the maturing of the baby boom generation and the arrival of immigrants increased the number of available workers. But the fruits of that growth have not been equally distributed.

Earnings dropped sharply for workers without much education and training. From 1979 to 1989, real wages for Washington workers without a high school education fell 27 percent.[15] The real wages of workers with a high school degree, but no postsecondary education, dropped 12 percent. Having two- or four-year college education moderated the decline, but real wages still fell by 4 and 5 percent, respectively. In contrast, those with a professional or doctoral degree found their real wages increasing 18 percent. National studies find that employees gain, on the average, an

CHANGE IN REAL WAGES BY EDUCATION LEVEL, 1979–1989



Source: 1998 *Long-Term Economic and Labor Forecast Trends for Washington*, The Office of Financial Management and Washington State Employment Security Department, 1996

Real wages for the less skilled have fallen the most in the last 20 years.

8 percent increase in income for each additional year of schooling.[16]

A Slow or Stagnating Rate of Productivity Increase

One cause of stagnating incomes is stagnating productivity growth. Only by producing more high-quality goods and services with lower production costs are we able to increase our standard of living. Productivity grew by an average of 4.1 percent per year from 1960 to 1964, ushering in steady improvement in living standards. But it slowed to 2.3 percent from 1970 to 1974 and 1.6 percent from 1980 to 1984. Although productivity began to increase again in 1993, from 1990 to 1994 productivity grew by only 1.1 percent per year.[17]

What would it take to put productivity back on the road of steady increases? Increased use of technology and high performance work organizations are two of the ingredients. But to achieve the full benefit of either, we need a skilled and educated workforce. According to the Census Bureau, a 10 percent increase in the educational attainment of a company's workforce results in an 8.6 percent increase in productivity.[18]

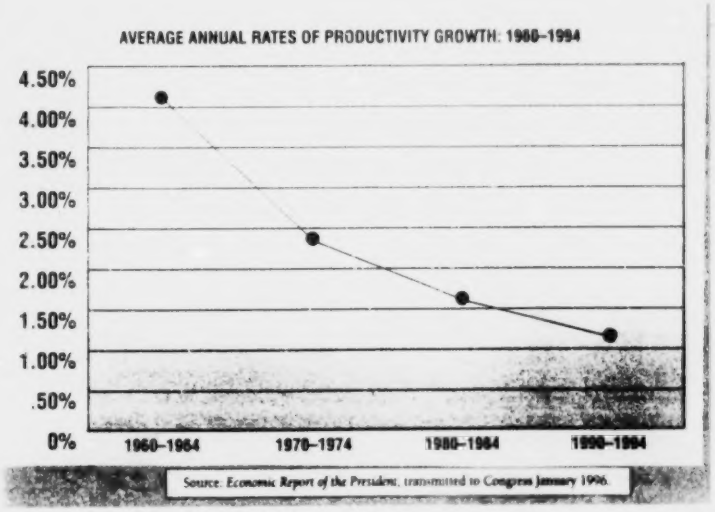
Technology Demands Higher Skills

Few occupations are escaping the technological changes forced by computers. Employees must not only become familiar with new, highly sophisticated machines, they must learn and relearn whole new organizational processes associated with those machines. According to Kiichi Mochizuki, a former Japanese steel executive who heads the Pacific Institute research group:

"These days, with computerized factories and digitally controlled machines, mathematics are very important for factory operations. When you talk about skill—the word 'skill' is wrong: It implies manual dexterity to carve wood or hit something with a hammer. Now skill is mental rather than manual."[19]

Even the auto industry, which perfected mass production using semi-skilled workers, is being transformed. Oldsmobile, Ford, and Chrysler are slashing the number of supervisors in their factories and giving workers greater responsibility for ensuring quality, redesigning manufacturing processes and improving the products themselves. Ford used to hire many workers without a

According to the Census Bureau, a 10 percent increase in the educational attainment of a company's workforce results in an 8.6 percent increase in productivity.



Growth in productivity is stagnating.

high-school diploma, but 97 percent of employees hired by Ford from 1991 to 1994 were high school graduates, compared to an average of 81 percent for Ford's hourly employees in general.[20] And when Chrysler replaced its antiquated Jefferson Avenue plant in Detroit with a new plant, it spent a million hours training the existing workforce to operate the new plant's highly automated machinery using self-directed work teams.

Training costs for the Jefferson conversion were high in part because many of the workers hadn't completed high school. Most corporations can't afford what Chrysler spent to provide basic education to employees. Even Chrysler, a very profitable automaker, found the cost burdensome. "If that's the way I'm going to handle my training, I'm going to go out of business," said Dennis Pawley, who headed Chrysler's manufacturing operations at the time.[21]

Changes in technology can also mean changes for highly skilled workers. New technology can require different types of skills than were required in the past.

The High-Skill/Low-Skill Decision

Chrysler's approach to automation involved redesigning the work to employ skilled, self-directed teams. But this isn't employers' only alternative in automating the workplace. They can "de-skill" their processes—redesign the work so that it can be performed by a machine tended by a low-paid, low-skilled employee. Or they can replace skilled employees with robots.

General Motors chose the latter path in "reindustrializing" its plants during the 80s. The company spent $77 billion on new assembly lines filled with sophisticated robots that could build a single model faster and with fewer workers than traditional assembly methods.[22]

This approach can work well in markets where a standard, mass-produced product will satisfy consumers. But companies that serve markets where consumer tastes change often are increasingly choosing to redesign work to employ high-skilled labor using flexible, computer-assisted production processes. In these markets, the most successful producers are flexible and quick to respond to market developments with small batches of customized goods that are both high-quality and competitively priced.

Toyota has chosen the flexible approach. Using teams of motivated workers instead of hundreds of robots, it can build as many as 38 different models on the same assembly line, quickly shifting production from slow-selling to hot-selling models. In contrast, GM's Fairfax, Kansas plant, rebuilt in 1987 with the latest in robotics, at times has had to run at 40 percent of capacity because customers weren't buying the Pontiac Grand Prix and the assembly line wasn't flexible enough to produce better-selling models.[23]

Washington's microbreweries have discovered the advantages of flexible, small-batch production. One such brewer, Olympia's Fish Brewing Company, has recently begun to produce a beer called Emerald Downs Ale exclusively for sale at Auburn's Emerald Downs race track. While demand for mass

market beers is stagnant, the number of microbreweries in Washington has grown from 29 firms in 1992 to 69 firms in 1996.[24]

High Performance Work Organizations Need Workers Who Think

Companies that pursue a strategy of market flexibility and responsiveness must rely on employees who can quickly adjust production processes to move in a new direction. These companies tend to share a set of traits that collectively describe a "high performance work organization." These traits include:

- A commitment to continuous improvement;
- Worker participation in decision-making at the shop-floor or frontline level;
- The integration of technology into work processes to a high degree;
- Cross-functional teams responsible for customer service, training, problem solving, and product design; and
- Management by coaching, planning, and facilitation, rather than enforcing.

High performance work organizations require high-skilled workers. Employees can't participate in decisions if they can't read the plant's production reports well enough to see the relationship between down time and financial performance. They can't operate computerized machines or understand statistical process control without some understanding of mathematics. And they can't contribute to a cross-functional team without basic communication skills.

To meet the needs of a high performance work organization, tomorrow's workers must not only receive job-specific and basic skills training. They must be able to:

- Adapt quickly to change;
- Perform more abstract work processes;
- Assume more decision-making authority;
- Work in teams; and
- Understand systemwide needs.

Employers are having a hard time finding these high performance skills among current job applicants. Among the 55 percent of employers who had difficulty finding qualified workers in the last 12 months, 77 percent had trouble finding workers with the ability to adapt to change.[25] Seventy-four percent had difficulty finding workers skilled in teamwork, and 84 percent had trouble finding job applicants skilled in problem solving. Without these skills, businesses cannot become high performance work organizations.

Yet, many Washington businesses are striving to adopt the high performance strategy. In 1990, a national study reported that only five percent of employers were using methods that characterize a high performance work organization.[26] When

"We have a real problem here. We have a technical society, but an education system that is not turning out technical people."

Remarks by John Smith, Jr., Chairman and Chief Executive Officer, Maxwell Convention Center, Tulsa, Oklahoma.

surveyed in 1995, 22 percent of Washington employers indicated they had a formal continuous quality improvement program in place.[27] Larger percentages of employers are using other high performance practices such as self-managed work teams or benchmarking their results against other firms.

Reinventing Government—Washington State Library

In 1995, the Washington State Library applied the principles of total quality and self-managed work teams to change its traditional culture dramatically.

The library, which provides information services to the Legislature and state government, reorganized from six operational levels to two, eliminating all supervisory positions in favor of self-managed work teams. Everyday operational and budget decisions are made by the teams, which are organized along functional lines. Cross-functional teams develop and recommend policy, carry out special limited-term projects or identify and implement process improvements. An executive management team, composed of the state librarian and two assistant directors, sets priorities and charters for all of the teams. All teams are expected to work together toward three common goals derived from the library's mission.

While results at this early point in the transition are primarily anecdotal, they are very encouraging. And, a recent staff survey indicates strong support; the staff are enthusiastic about the opportunities to have input and to take the initiative. The first process improvement teams identified over 90 hours per month that could be redirected to higher priority customer needs.

There is still much work ahead to refine the library's new organization, but there is no doubt that the new structure will help the library become more efficient and customer driven and more responsive to rapid changes in information technology.

The high performance strategy can only be an option where the employer is either willing to train its workforce or there is already an adequate supply of skilled workers. Washington employers engaging in high performance practices are more likely to provide training to their employees and to expect increased employment of workers with postsecondary training. As the number of high performance work organizations increases, so will demand for highly skilled workers.

Implications

Washington's economy is changing. The jobs being created demand higher skills, and only higher-skilled jobs will pay a family wage.

Employers need skilled workers. If employers can't find trained workers in Washington, they will look to other states or nations, or they will design new jobs so that high skills are less important and high wages are unnecessary.

Our citizens need jobs that pay well enough to provide a decent standard of living. Unless we equip our workforce with the skills to succeed in high-wage jobs, our society will become increasingly polarized into skilled "haves" and unskilled "have-nots."

Workforce training has become a key influence on Washington's economic future. The state's training and education system must ensure that tomorrow's workers obtain the higher-order skills necessary to perform in competitive organizations. Retraining must be available for today's workers so they can match changing demand. Major investments in the skills of current and future workers are essential.

But training is not the complete answer, says the National Center on the Educational Quality of the Workforce:

"Corporate managers must first embrace new ways of doing business, including high performance work organizations, as well as computer-integrated production. In close cooperation with schools on the one hand and workers on the other, the nation's employers can then begin the necessary upgrading of employee skills."[28]

Finally, workforce training and education must be coordinated with state and local economic development strategies. A knowledgeable workforce is a state resource and a "draw" for employers considering where to locate or expand their operations. Coordinating workforce development with economic development can help us attract the industries that pay family-wage jobs and enhance the economic prospects of our citizens.

Section Three Footnotes

Tomorrow's Economy

1. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, 1996, p. 24.

2. *Washington State Labor Market and Economic Report–1995*, Washington State Employment Security Department, Appendix II.

3. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, 1996, pp. 28–29.

4. *Washington State Labor Market and Economic Report—1995*, Washington State Employment Security Department, Appendix II.

5. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, 1996, pp. 27–28.

6. Ibid. p.24.

7. *Wall Street Journal*, September 5, 1995, and telephone conversations with Microsoft and Hewlett-Packard.

8. *The Seattle Times*, September 15, 1996.

9. Based on *Washington State Occupational Outlook 1995–2010*, Washington State Employment Security Department, 1996. The numbers in this section differ substantially from the numbers in the 1994 publication of "*High Skills, High Wages*," because they refer to different things. In 1994, "*High Skills, High Wages*," referred to only new jobs created by economic growth. This publication refers to job openings due to both the creation of new jobs and due to vacancies caused by employees leaving their jobs for retirement or some other reason. Also, in 1994, jobs requiring up to but less than two years of postsecondary training were grouped with jobs requiring two or three years of training. Now they are grouped with jobs that require high school only.

10. *Workforce Training Results: An Evaluation of Washington State's Workforce Training System*, Workforce Training and Education Coordinating Board, 1996, pp 3–4.

11. *Workforce Training Supply, Demand, and Gaps*, Workforce Training and Education Coordinating Board, 1996, pp. 7–15.

12. Ibid., pp. 5–6.

13. *Economy, Population, Budget Drivers, Taxes and Spending*, Washington State Office of Financial Management, 1995, p. 4.

14. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, 1996, pp. 43–47.

15. Ibid. p. 55.

16. "Study Ties Educational Gains to More Productivity Growth," Peter Applebome, *New York Times*, May 14, 1995.

17. *Economic Report of the President*, transmitted to Congress January 1996.

18. "Study Ties Educational Gains to More Productivity Growth," Peter Applebome, *New York Times*, May 14, 1995.

19. "The Truth About the American Worker," *Fortune*, May 4, 1992, p. 54.

20. "Auto Plants, Hiring Again, Are Demanding Skilled Labor," *Wall Street Journal*, March 1994, p. 1.

21. Ibid.

22. *Challenge to America*, Public Broadcasting System, 1994.

23. Ibid.

24. Fish Brewing Company and the Washington State Liquor Control Board, 1996.

25. *Workforce Training Results: An Evaluation of Washington State's Workforce Training System*, Workforce Training and Education Coordinating Board, 1996, p. 3.

26. *America's Choice, The Report of the Commission on the Skills of the American Workforce*, National Center on Education and the Economy, 1990, p. 40.

27. Unpublished findings from the Workforce Training and Education Coordinating Board's survey of Washington State employers.

28. "Look Before You Leap: State Policy on Workforce Skills," *Education and the Quality of the Workforce*, National Center on the Educational Quality of the Workforce,1993, p. 3.

TOMORROW'S WORKFORCE:

Will We Have the Skills We Need?

Washington's businesses will need increasing numbers of skilled workers. But two major population trends challenge our state's ability to meet that need. Growth in the workforce is slowing, and an increasing percentage of new entrants to the workforce will come from populations that traditionally have received less education. A third trend—the aging of the population—will increase the need for lifelong learning.

Slow Growth in the Workforce

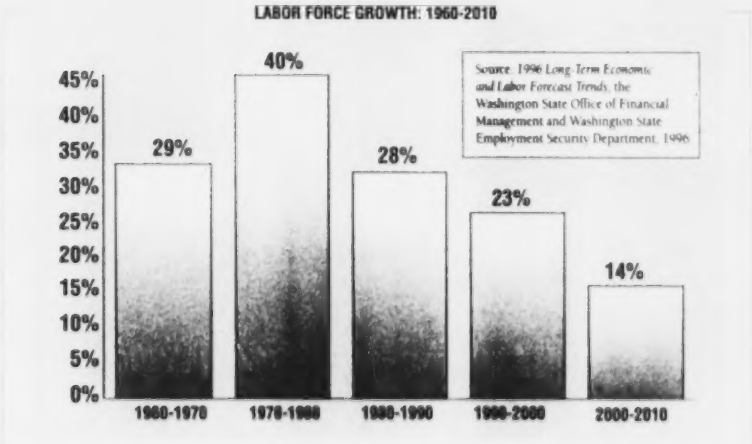
Washington's working-age population grew by more than 25 percent each decade during the 1960s, 1970s, and 1980s. This growth provided our employers with a ready supply of skilled workers to staff expanded operations. But Washington's population growth is slowing. Even with continued inmigration from other states and countries, growth in our working-age population is expected to slow to 23 percent during the 1990s, and drop to only 14 percent between 2000 and 2010.[1]

— Continued —

A lower birth rate is the main reason for this slower labor force growth.[2] Also contributing to the slowdown is a drop in men's labor force participation brought on by improved retirement options and a leveling off of the growth in women's labor force participation.

Washington's future economic growth could be constrained by limits in the supply of skilled workers. Shortages could develop, particularly in occupations which require technical training beyond the high school level.

This presents Washingtonians with an opportunity and a challenge. The opportunity is that good paying jobs may become available to a wider spectrum of people than in the past. The challenge is to ensure that our citizens have the skills necessary to succeed in these new jobs.



Growth in labor force is slowing, creating the potential for shortages of labor and skills.

New Sources for Tomorrow's Workers

With a slowdown in labor force growth and an increase in the skill levels demanded by the jobs now being created, Washington's economy is going to need every available skilled worker in the state. Where will these workers come from? They could come from population segments that in the past have been underrepresented in both technical training programs and the workforce at large.

People of Color

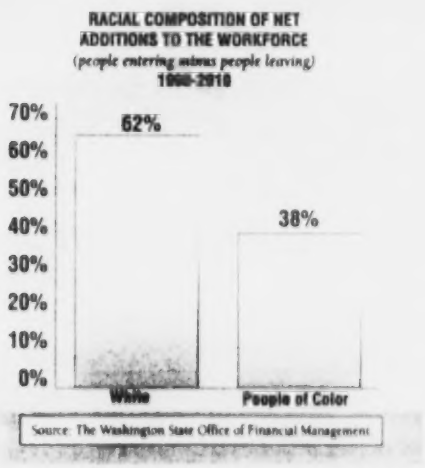
Washington's population is gradually becoming more racially diverse. While the entire population is growing through births and immigration, the number of people of color is growing more quickly than the white population.

The Hispanic and Asian/Pacific Islanders populations in Washington are increasing rapidly. By 2010, Washington will be home to 525,000 Hispanic people, an increase of 145 percent over 1990. The number of Asians/Pacific Islanders will rise by a slightly larger percentage—153 percent.[3]

Nationally, the number of youth of color, ages 5 to 17, will increase by 7.3 million between 1990 and 2010, while the number of white youth will stay about the same.[4] In Washington, 22 percent of public school students in grades K–12 are students of color.[5] As many as 90 languages are spoken by students in Washington's large urban school districts.

People of color are becoming a larger percentage of Washington's workforce. Thirty-eight percent of the net additions to Washington's workforce (people entering minus people leaving) from 1990 to 2010 are expected to be minorities. In 1990, 10 percent of Washington's working population was nonwhite; by 2010, 18 percent will be.[6]

For a variety of reasons, including racial prejudice, people of color have in the past obtained less education on average than whites[7] and have experienced higher levels of unemployment.[8] As a result, this growing population has a large, unmet need for education and training. Washington must satisfy this need. The combination of slower growth in the workforce and faster growth among people of color bring together a



People of color will make up a large share of net additions to the workforce.

Limitations of Poor Basic Skills

According to the State Adult Literacy Survey, between 31 and 36 percent of Washington's adults perform at the lowest two levels of proficiency (out of five) in reading, math, and problem solving.[9]

At Level 1, many adults are unable to respond to much of the survey. Others can only perform simple, routine tasks involving brief and uncomplicated texts and documents. For example, some can total an entry on a deposit slip, locate the time and place of a meeting on a form, and identify a piece of specific information in a brief news article.

At level 2, adults are able to locate information in text, make low-level inferences using printed materials, and integrate easily identifiable pieces of information. They demonstrate the ability to perform quantitative tasks that involve a single operation where the numbers are either stated or can easily be found in the text. But they are bound to have difficulty absorbing and using information in tomorrow's (or today's) increasingly complex workplace.

"The idea of delivering basic skills in a work-based situation makes all sorts of sense."

Cheryl Falk, Dean of Instructional Support, Yakima Valley Community College, speaking to the Workforce Training and Education Coordinating Board in Aberdeen, May 1996.

Providence Seattle Medical Center: Upgrading Basic Skills

The Providence Seattle Medical Center provides specialized workplace literacy assistance for its employees. Participating employees meet with a workplace literacy consultant who conducts an informal assessment of the worker's skills, discusses learning goals, and pairs the employee with a hospital staff member who volunteers as a tutor. The tutor assists by reviewing work-related vocabulary, Medical Center practices, and reviewing specific basic skills needed by the learner.

Using funding from a National Workplace Literacy grant, the Medical Center and the Seattle Central Community College also launched a program to help approximately 24 employees per quarter upgrade their basic skills. Some participants form "learning teams" that engage in work-related projects to develop problem solving, communications, and leadership skills. Others enroll in a beginning computer class to reduce the fear of technology and improve self-confidence. Reading, writing, and math are integrated into both courses.

"Encouraging staff to share their expertise as volunteers and to assist other employees with basic skills development is consistent with the Sisters of Providence mission of social responsibility and service to others," says Margaret Burke, Director of Organizational & Community Development. "We want our in-house workplace literacy programs to focus on skill preparation for the future. Health care workers in all job classifications will interface with technology and must be increasingly proficient in communication and teamwork skills."

moral imperative for equal opportunity and an economic imperative for better-educated workers.

Citizens Who Are Economically Disadvantaged

Washington has thousands of citizens who lack basic skills such as high school level proficiency in math and reading. Citizens who are economically disadvantaged, in particular, tend to lack basic skills.

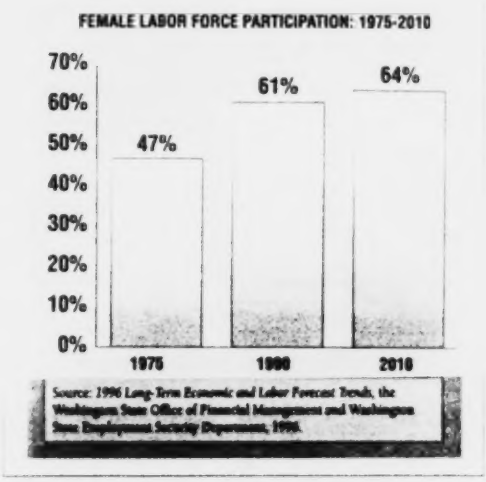
Many of these citizens, such as agricultural workers, are employed but are unable to advance because they lack transferable skills. Among the approximately 315,000 adults who are economically disadvantaged (defined as having incomes below 125 percent of the poverty line), 79,000 have no high school diploma or vocational training; 146,000 are unemployed or not in the labor force.[10] Among the 100,000 adults receiving Aid to Families with Dependent Children during an average month, about 40 percent do not have a high school diploma or GED.[11] Among the approximately 170,000 migrant and seasonal farm workers, the median annual income is $5,000 and the median level of educational attainment is the eighth grade.[12]

Such citizens have substantial needs for basic workplace skills and occupational training that must be satisfied before they can take advantage of the opportunities the economy will present. Without sufficient foundation skills, these individuals won't be able to read the operating instructions that accompany today's increasingly complicated machinery. They'll lack the understanding

of math needed to adjust computer-guided controls. And they'll be unable to compete for positions for which the ability to access and manipulate information is key.

Women

Women have entered the labor force in vast numbers over the last 25 years. In 1975, 47 percent of working-age women in Washington were in the labor market. By 1990, that number reached 61 percent. The State Office of Financial Management forecasts that by 2010, 64 percent of all working-age women will be participating in the labor force.[13]



The percentage of women in the labor force will continue to grow.

Although more women are working and there are fewer barriers to entering male-dominated fields, women's progress has been uneven:

- Women are still concentrated in clerical, sales, service, and light manufacturing jobs.
- When women and men are in the same occupation, men still tend to have higher pay.
- Because of occupational selection, women continue to lack access to jobs with career ladders.
- Only 17.5 percent of the participants in state-approved apprenticeship programs are women. Many programs have no female participants.[14]

Eighty percent of all adults receiving Aid to Families with Dependent Children are women. To the extent that women remain concentrated in occupations and industries that do not provide them with compensation sufficient to support themselves and their children or offer opportunities for advancement, these families will continue to remain within the boundaries of poverty.

Labor supply constraints for skilled occupations could sharpen the need to recruit and promote women. Employers who discourage sex stereotyping and provide "family-friendly" work environments will be more successful in recruiting and retaining the best candidates—male and female alike.

"Students who are exposed to an environment in which they interact with people of many cultures, including teachers and administrators, will be better able to function in the multicultural market place."

Kenneth Doka, "Dealing With Diversity: The Coming Challenge to American Business," Workforce Economics, JAI Press, May/June 1996.

People with Disabilities

People with disabilities represent another underutilized human resource. Approximately 449,000 Washingtonians age 16 to 64 have work-limiting disabilities. Of these, 184,000—or about 41 percent—are working. More than 190,000 are not in the workforce. But 75,000 nonworking people with disabilities—17 percent of the entire disabled population in Washington—say their disability does not prevent them from working.[15] Bringing these disabled people into the workforce would be like adding more new workers than there are working-age people in the Tri-Cities.

Training a Diverse Workforce

Washington's workforce training system must adapt to the growing diversity of the workforce. Public institutions' record in this area—from the perspectives of employees, as well as students—is mixed.

Serving Students of Color

Washington's large urban school districts offer fewer vocational courses than suburban or rural school districts. Because most students of color live in large urban districts, these students lack opportunity to explore vocational choices. In 1995, only 211 African American males completed a secondary vocational education program in Washington State.[16]

With regard to enrolling minority students, postsecondary schools are performing well. Among the state's community and technical colleges, people of color (except Hispanics) are enrolled at rates higher than their incidence in the general population.[17] And in the past five years, community college enrollment growth for students of color has increased 37 percent. In that same period, white student enrollment showed no growth.[18]

Once people of color are enrolled, however, they drop out in higher percentages than the population at large.[19] (However, because of minority students' higher than average initial enrollment, they still complete their courses of study in higher percentages than the general population. And Asian Americans' retention rate is higher than that of other population groups.)

In general, African American and Native American graduates of training programs are less likely than white graduates to be employed the third quarter after completing their program. And those who do complete a community or technical college program or a Job Training Partnership Act (JTPA) program have substantially lower incomes than whites who complete the same program.[20]

Employing People of Color

Community and technical colleges have made substantial progress in employing people of color, especially at the top administrator level. Minorities comprise about 11 percent of full-time faculty—somewhat less than their 15 percent representation in the general population. Nearly 16 percent of administrators and 18 percent of classified staff are people of color. Thirteen of the top

119 administrators are people of color, compared to just eight a couple of years ago.[21]

People of color are underrepresented in the ranks of those who lead and teach in our K–12 school system.[22] Only 8 percent of all administrative, faculty, and staff positions are held by people of color. And though nearly 22 percent of K–12 students are of color, only 6.1 percent of teachers are.[23]

Women in the Workforce Training System

Enrollment of women and girls in workforce training and education is generally equal to or above their incidence in the population, although (as in apprenticeship programs) female enrollment in traditionally male fields of study is lower. After training, however, women generally are less likely to be employed, and if employed, to have lower earnings than men.[24]

As employees, women are fairly well represented at all but the top levels of the community and technical college system. They comprise 42 percent of full-time faculty and 54 percent of administrative positions. However, only 27 percent of the vice presidents and presidents are female.[25]

Within the K–12 system, 68 percent of the teachers and 41 percent of central and unit administrators are women.[26]

These figures paint a picture of minorities and women being able to enter the workforce training system as students and employees, but not to achieve the same levels of success as their white male counterparts. To change this picture, we must insist that our K–12 schools and our community and technical colleges better support students of color and women, and we must find ways to create more opportunities for women and minorities to advance to positions of leadership in our educational institutions.

We must find ways to create more opportunities for women and minorities to advance to positions of leadership in our educational institutions.

The Population Is Aging

The leading edge of the baby boom has entered its 50s. Before long, this largest generation in American history will swell the ranks of the retired. Already, people over age 65 constitute the fastest growing segment of the population.

In contrast, the relatively small number of persons born during the period following the baby boom will comprise the labor force. As a result, the ratio of active to retired workers may drop from 3.3 workers for every one retiree in 1994, to 2.7 workers for every one retiree in 2010. By 2030, the ratio could drop to two workers for every retiree.[27]

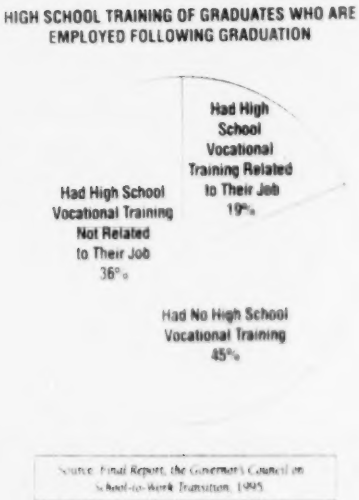
The aging of our population has at least four implications for Washington's workforce needs:

- Because a diminishing pool of younger workers will be supporting the Social Security benefits of an ever increasing pool of retirees, it will become even more important that younger workers are employed at the highest level of their skills and earning capacity.

- With fewer younger workers entering the labor force, employers will increasingly need to rely on retraining older workers to meet emerging skill needs.

Older workers who regard learning as a lifelong pursuit, instead of something that ends with the completion of their formal education, will be best able to profit from these new training opportunities. And public and private training programs will need to serve the needs of older workers returning for retraining.

- New work arrangements may be needed to encourage retired workers to return or remain in the workforce as part-time employees.


HIGH SCHOOL TRAINING OF GRADUATES WHO ARE EMPLOYED FOLLOWING GRADUATION
Had High School Vocational Training Related to Their Job 19%
Had High School Vocational Training Not Related to Their Job 36%
Had No High School Vocational Training 45%
Source: Final Report, the Governor's Council on School-to-Work Transition, 1995

Most high school graduates lack vocational training related to their job.

- An increase in the number of employees supporting aging parents will demand more family-friendly policies in the workplace.

The Transition From School to Work

One possible source for new workers will be the rapidly increasing population of young people. If the economy is to adjust successfully to an aging population, we must prepare the coming generation of young workers for full participation in the economy. Between 1995 and 2010, the population of 17- to 25-year-olds will increase by about 30 percent.[28] But will these young people leave school ready to work?

Too many young people never complete high school and too many emerge from high school ready neither for college nor work. Twenty-three percent of Washington ninth graders drop out before graduation.[29] A study of 13 school districts found that only a third of all students attended a vocational program. Among high school graduates who were working full- or part-time after graduation, only 19 percent had received vocational training in high school related to their job.[30]

Many of those who do not enroll and directly complete a college education spend years drifting from dead-end job to dead-end job before linking with a career/training track at a community or technical college or private career school. We lack an effective

system to help students make the transition from school to work. As a result, a large number of our young people are underutilized as workers and unable to take their places as full adults.

Implications: We Can't Waste a Single Individual

Now, more than ever, we must equip our citizens with a firm foundation of basic skills and technical training. Without a skilled labor force, Washington will increasingly be a society of rich people and poor people with a diminished middle class. Employers won't be able to find qualified workers to staff tomorrow's high performance work organizations. Citizens will find themselves unable to compete for jobs in the most profitable and competitive companies. And we may discover that the most desirable firms—those which offer family-wage jobs—move to or expand in places with greater availability of skilled workers.

Can we afford to have any of our workers be unemployed or underemployed for lack of skills? Not if we want to preserve the quality of life we treasure. We must ensure that all of our citizens—people of color and whites, women and men, people with disabilities, the economically disadvantaged, and the prosperous—are trained and positioned for success. We can't afford to waste a single individual.

Section Four Footnotes

Tomorrow's Workforce

1. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, 1996, p. 15.

2. *Forecast of the State Population by Age and Sex: 1990–2020*, Washington State Office of Financial Management, 1995, p. 6.

3. *Population Forecast by Race/Ethnicity, Age, and Sex*, Washington State Office of Financial Management, 1996, p. 5.

4. *Youth Indicators*, National Center for Education Statistics, 1993.

5. *School Enrollment Summary: Washington State School Districts 1995–96*, Office of the Superintendent of Public Instruction, p. 1.

6. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, p. 19.

7. *Adult Literacy in Washington*, Educational Testing Service, 1994, p. 68.

8. *1992 Geographic Profile of Employment and Unemployment*, Bureau of Labor Statistics, 1993.

9. *Adult Literacy in Washington*, Educational Testing Service, 1994, p. 68.

10. The Workforce Training and Education Coordinating Board estimates based on the 1990 United States Census.

11. Department of Social and Health Services, and *The Family Income Study and Washington's Welfare Population: A Comprehensive Review*, Washington State Institute for Public Policy, 1995.

12. Washington State Migrant Council, 1996.

13. *1996 Long-Term Economic and Labor Forecast Trends for Washington*, Washington State Office of Financial Management and Washington State Employment Security Department, p. 17.

14. Department of Labor and Industries, 1996.

15. United States Census.

16. Office of the Superintendent of Public Instruction, 1996.

17. *Third Annual Progress Report on System Goals for People of Color Participation and Diversity*, State Board for Community and Technical Colleges, 1996, p. 2.

18. *Academic Year Report-1995*, State Board for Community and Technical Colleges, 1995, p. 17.

19. *Third Annual Progress Report on System Goals for People of Color Participation and Diversity*, State Board for Community and Technical Colleges, 1996, p. 4.

20. *Workforce Training Results*, Workforce Training and Education Coordinating Board, 1996.

21. State Board for Community and Technical Colleges, 1996.

22. *Personnel by Major Position and Race/Ethnicity for School Year 1995–96*, Office of the Superintendent of Public Instruction, 1996.

23. *School Enrollment Summary: Washington State School Districts, School Year 1995–96*, Office of the Superintendent of Public Instruction, p. 1.

24. *Workforce Training Results*, Workforce Training and Education Coordinating Board, 1996.

25. State Board for Community and Technical Colleges, 1996.

26. *Personnel by Position and Sex for School Year 1995-96*, Office of the Superintendent of Public Instruction, 1996.

27. *The 1995 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund*, 1995, p. 3.

28. *The Challenge for Higher Education: 1996 State of Washington Master Plan for Higher Education*, Higher Education Coordinating Board, 1996, p. 11. It should be noted that while the 17–25 year-old population will increase rapidly, the entire working-age population will grow more slowly than in recent decades

29. *1995 Data Book*, Washington State Office of Financial Management, p. 99.

30. *Final Report: Governor's Council on School-to-Work Transition*, 1995, p. 5.

TODAY'S WORKFORCE TRAINING AND EDUCATION SYSTEM:

Will We Meet the Challenge?

Our global, competition-driven economy and the changing composition of our workforce present Washington's workforce training and education system with unprecedented new challenges. This diverse system encompasses more than 40 state and federal programs, hundreds of academic and technical institutions, and training providers; and thousands of students, workers, and employers.

To respond to the economic and demographic challenges facing us, the leaders in our state's workforce development system are:

- Adopting competency-based measures as the yardsticks of student achievement;
- Creating ways to improve students' transition from school to work;
- Easing transitions for dislocated workers;
- Moving to more customer-focused employment and training policies and services; and
- Increasing coordination among programs in order to provide higher-quality, more accessible service.

—Continued—

These efforts are making the workforce training system more responsive to the needs of students, families, workers, and employers. But much more needs to be done.

A Complex System

Responsibility for workforce training and education is shared by the state and federal governments, college and K–12 school districts, and the private sector. These entities direct an education, training, and employment enterprise that includes:

- 236 high school vocational education programs in 296 school districts;
- 8 vocational skills centers;
- 32 community and technical colleges;
- 381 apprenticeship programs;
- 300 private career schools and training providers;
- 12 "service delivery areas" that operate under the Job Training Partnership Act;
- A wide variety of other employment and training programs targeted at workers who are older, disadvantaged, dislocated, low-skilled, disabled, or veterans of military service;
- Employer-provided training; and
- 29 state-run Job Service Centers.

The roots of this system were established in another era. Vocational education programs were founded when states were largely rural, and the courses they offered emphasized agriculture and home economics. Apprenticeship programs were originally designed for construction and machine trades and traditionally were filled mostly by white males.

Subsequent developments in public training included programs targeted for specific parts of the population facing what seemed to be special conditions; for example: education for veterans or employment assistance for workers whose jobs were lost when trade barriers were lifted. Training programs for dislocated and disadvantaged workers were expanded as policymakers responded to what seemed to be special needs.

Only when the causes of those special problems are examined together does a pattern of structural economic change become evident. The cumulative effect of this change is now upon us. That pattern is characterized by global competition, ever higher levels of technology, rapidly changing markets, and dwindling opportunities for low-skilled workers.

A closer look at the major publicly funded providers of workforce education and training reveals that the system is being challenged by the more stringent demands of today's economy and society and how these providers are responding.

Workforce Training System Mission Statements

Office of the Superintendent of Public Instruction
Vocational-Technical Education

Secondary vocational-technical training programs provide for the vocational interest of students and the need of industry for a skilled workforce. The program's statewide mission is to prepare all learners for successful roles in families, careers, and communities.

State Board for Community and Technical Colleges
Workforce Training

Washington's community and technical colleges strive to provide the highest quality training programs to the state's employers and workers. Ensuring access for a diverse student body to relevant, responsive, state-of-the-art training programs is the paramount workforce training goal of the college system.

State Board for Community and Technical Colleges
Adult Basic Education

Washington State's Adult Basic Education system helps adults become more self-sufficient by being able to function independently, be more productive in a global economy, and exercise the rights and responsibilities of citizenship.

Employment Security Department

The mission of the Employment Security Department is to help people succeed throughout their working lives. The Department carries this out by supporting workers during times of unemployment, by connecting job seekers with employers who have jobs to fill, and by providing business and individuals with the information and tools they need to adapt to a changing economy.

Employment Security Department
JOBS Program

To assist recipients of Aid to Families with Dependent Children (AFDC) enter or reenter gainful employment and avoid long-term welfare dependency by providing the opportunity to obtain appropriate training, education, and supportive services.

Job Training Partnership Act
Titles II and III

It is the mission of the Job Training Partnership Act (JTPA) to prepare youth and adults facing serious barriers to employment for participation in the labor force by providing job training and other services that will result in increased employment and earnings, increased educational and occupational skills, and decreased welfare dependency, thereby improving the quality of the workforce and enhancing the productivity and competitiveness of the Nation.

High Schools

The first contact that a young person has with Washington's workforce training and education system has usually been a vocational education program in high school. The State Board of Education requires each graduating high school senior to have taken at least one year of an approved vocational education course, which can range from keyboarding to computer-aided design to marketing. Two hundred and thirty-six of the state's 296 school districts offer at least one state-approved vocational education program.

Skills Centers

In addition to the vocational courses offered in high schools, eight regional "skills centers" operate under cooperative agreements between two or more school districts. Students divide their days between the skills centers and their high school.

Skills centers offer districts a chance to share the costs of providing well-equipped and staffed sites for vocational and technical training. Skills centers are increasingly using their vocational education programs to reinforce basic skills and place greater emphasis on work maturity skills, while continuing to provide technical skill training. Skills centers include programs to recapture high school dropouts who have difficulty seeing the connection between high school and their working future.

Vocational Education Has Been Underemphasized

Although the majority of the state's high school students receive some exposure to vocational education, many students do not consider these single courses to be related to employment. Instead, they view the courses as electives offering skills, such as word processing, that will be helpful in pursuing further education. This is less true among the one-sixth of graduating seniors

High School Vocational Courses

Vocational course offerings in Washington's high schools vary significantly with district size, location, the district's philosophy of vocational education, and the administrative support given to vocational education.

Most small high schools offer one or more courses in the areas of agriculture, family and consumer sciences, and business education. A large high school may offer these, plus courses in trade and industry, health occupations, and marketing. Large schools also offer more courses within each of these areas and may offer vocational preparatory courses in junior high.

Washington's large urban school districts offer fewer vocational courses than do suburban or rural school districts. Because most students of color live in large urban districts, these students are currently underrepresented among participants in secondary vocational education programs. They are a population which could profit dramatically from a better organized transition from school to work.

who have completed an entire vocational program. These students are more likely to see the connection to the world of work.

Most schools' policies and curricula emphasize preparing students for college. Vocational courses have historically been viewed by the education system as less prestigious than academic courses and have not been accepted by colleges as meeting entrance requirements. This has discouraged parents and students from seeing the value of these courses.

Recent changes help. Now Washington school districts have the authority to determine if a high school course meets college entrance standards. Vocational and applied courses that school districts determine are equivalent to college entrance core courses are listed with the Higher Education Coordinating Board, and the list is used by in-state and out-of-state colleges and universities as they review entrance applications.

Continuing to assume that most high school graduates will go on for baccalaureate degrees, however, ignores the realities of the labor market, actual student behavior, and the limited ability of institutions of higher education to absorb high school graduates.

Consider that four out of five jobs to be created between now and 2010 will *not* require a four-year degree. At the same time, the demand for people with one, two, or three years of postsecondary technical education is increasing. So is the total secondary school population: the population of 16- and 17-year-olds will rise by 17 percent between 1995 and the year 2000, with a further 15 percent increase by 2010. Places for an additional 8,500 full-time equivalent students (FTEs) will be needed by the year 2000 just to accommodate growth at current participation rates.

Overall, the most significant boost to vocational education will be the integration of vocational education with academic education, a chief tenet of school-to-work transition reform, described further below. Following the instruction of the Legislature, many school districts have begun the process of moving toward integrated vocational and academic learning through educational career pathways for all students.

Four out of five jobs to be created between now and 2010 will not require a four-year degree.

Governance of K–12 Vocational Education

Overall policy for K–12 school systems is set by the State Board of Education, whose members are elected by local school boards. The Board's executive officer is the Superintendent of Public Instruction, an elected state official who administers the Office of the Superintendent of Public Instruction. Locally elected school boards set policy at the district level.

Districts with approved high school vocational education programs are required to have general advisory councils and a program advisory committee for each vocational program. Some schools have realigned their advisory committees to support the career pathways established for the district. Composed of representatives of business and labor, these councils and committees help the schools match their programs to the needs of local industry.

"The academics form the foundation of the house. What I see is the opportunity for students to design whatever house they want on top of that foundation."

Bruce McBurney, 1996/97 President, Washington Vocational Association, testifying September 4, 1996, in Seattle at the Workforce Training and Education Coordinating Board hearing on the comprehensive plan.

K–12 School Reform: Building Competency-Based Education

Changing vocational courses is not enough. The education we give to all students in our primary and secondary schools is their foundation for learning throughout their lives. That education must be challenging and fulfilling, and it must provide them with the basic skills they will need as adult workers, employers, and citizens.

Recent pieces of legislation—the Performance-Based Education Act of 1992 and the Education Reform Act of 1993—will ultimately bring about fundamental differences in how we prepare our children to be successful. These laws make competency the central measure of student achievement.

In a competency-based system, emphasis is on the demonstrated ability to use skills. Ideally, a competency-based system allows students to progress at their own speed and—especially in postsecondary education and training—facilitates open entry and exit to education and training. To create a competency-based system, it is necessary to define specifically what knowledge and skills the student is required to master and to be able to assess student's mastery of those skills.

The Performance-Based Education Act established the Commission on Student Learning (CSL) with the charter to establish new learning requirements for Washington students—that is, identify the skills they are to master—and to build the assessment system. CSL is to define the criteria for a Certificate of Mastery, which will verify that students have mastered the "core competencies" and which must be achieved by all students by about 16 years of age. CSL must also create an accountability system for schools that is based on student performance. The Education Reform Act provides funding, direction, and a timetable for school districts to redesign their curricula so students reach four broad goals (see box).

The State Education Goals

The Education Reform Act provides funding, direction, and a timetable for school districts to redesign their curricula so students reach the following four goals.

GOAL 1: Read with comprehension, write with skill, and communicate effectively and responsibly in a variety of ways and settings;

GOAL 2: Know and apply core concepts and principles of mathematics; social, physical, and life sciences; civics and history; geography; arts; and health and fitness;

GOAL 3: Think analytically, logically, and creatively; and to integrate experience and knowledge to form reasoned judgements and solve problems; and

GOAL 4: Understand the importance of work and how performance, effort, and decisions directly affect future career and educational opportunities.

CSL's current work focuses on preparing assessments. In May 1996, pilot tests of assessments to be used at the first benchmark (grade 4) for Goal 1 and the math portion of Goal 2 were administered by 250 school districts in more than 800 schools to approximately 60,000 students. A full assessment of all fourth graders will be operational in the spring of 1997. Results from the complete assessment will be available to students, teachers, and parents. The seventh grade assessments will be piloted in the spring of 1997 with a full assessment in 1998. The tenth grade pilot will be conducted on a very limited basis in the spring of 1997 with a full pilot in the spring of 1998 and the full assessment in 1999.

CSL will ask the 1997 Legislature to fund development of assessment tools for the remainder of Goal 2 subject areas. The implementation design would begin with pilot assessments at the high school and middle school levels for science and social studies in 1998 and full assessments by 1999. Art and health education would also begin at the high school and middle school level, being piloted in 1999 and implemented in 2000.

CSL reports that assessments for Goals 3 and 4 are being integrated into the assessments of Goals 1 and 2 and will follow the timelines identified above if approved by the Legislature.

There are four components to each assessment being developed:

- State-level assessments for grades four, seven, and ten to be administered to all students in those grades at approximately the same time.

Career Pathways

Career pathways are a coherent sequence of courses that integrate academic and work-based learning around a group of careers. Pathways help link students' secondary and college studies to their career interests, preparing them for employment in a broad occupational cluster or industry sector.

At the suburban Bethel School District near Tacoma, all eighth-grade students are prepared to choose from among six career pathways: arts and communication, business and marketing, health and human services, industrial technology, and engineering and science. These choices are preliminary, and students are free to change pathways, but their choices allow them to learn and attain skills in classes focused around their career interests.

For example, students in Bethel's business and marketing career path would take mathematics in courses such as electronic math applications and/or accounting. In other schools, students in the health-related pathways might study the history of medicine, while those in the engineering pathway study the history of bridges and roads.

Pathways unite students' courses in thematic ways that can carry into postsecondary study, much as a college major does. Currently at Bethel, pathways are linked to local colleges through Tech Prep articulation agreements with surrounding community colleges.

Work-Based Learning in Washington

Work-based learning, both paid and unpaid, is precisely defined in the *Final Report of the Governor's Council on School-to-Work Transition*. This definition has been adopted in the state's federally approved school-to-work implementation plan:

Paid work-based learning, which is appropriate for students who have attained the Certificate of Mastery, should include, but not be limited to:

- Work combined and coordinated with classroom learning.
- Work described within a mutually agreed upon training plan between employer, union (as applicable), parent, student, and school.
- Work supervised by a highly skilled individual or master craftsperson in the field.
- Work conducted on the jobsite.
- Work related to the student's career pathway.
- Work paid at least at the minimum hourly wage with the possible exception of some categories of work performed for nonprofit entities.
- Work that culminates in the achievement of competencies and skills as defined by industry-accepted performance standards.

The skills obtained in work-based learning should be verified on a portable document that records the accumulation of competencies and skills as they are certified.

Academic reform should include the identification and assessment of basic workplace skills so that a Certificate of Mastery is an employer's guarantee that a student is prepared for paid work.

Unpaid work-based learning, appropriate for students still working to attain the Certificate of Mastery, should include, but not be limited to, worksite experiences that:

- Combine and coordinate with classroom learning to support the essential learning requirements identified by the Commission on Student Learning as necessary for the attainment of the Certificate of Mastery.
- Are identified in mutually agreed upon training plans and agreements among trainer, union (as applicable), parent, student, and school.
- Do not produce significant economic benefit to the employer or replace a regular worker.
- Occur during time usually designated as the student's normal school day.
- Are time limited, with the amount of time involved to be commensurate with the developmental level of the student.
- Increase in skill as academic competency increases and in accordance with career development, as applicable.

- Classroom-based assessments conducted by teachers throughout the school year to determine student progress on essential learnings.
- A professional staff-development component to assist teachers to understand the assessments and using the results to improve student learning.
- System indicators for school-level accountability.

Improving the Transition From School to Work

In addition to raising the standards for performance, our youth must appreciate how the skills they learn in school are used in the world around them. Students must understand the role of learning in the larger scope of their lives and the relationship of schools to the community around them.

Today, too many students fail to see the relevance or usefulness of what goes on in school. As a result, they are not motivated to study and achieve their full potential. Too often they are told that one school course is important because it leads to another—they must take algebra so they can take calculus—so they see school as nothing but preparation for more school.

What students want are demonstrations both about why education is useful and how it relates to their individual futures. They need to experience how academic and vocational skills are used in the workplace and what specific skills they must master to

succeed in the occupations that interest them. They need to see what careers are available to them—and learn how to match their interests and abilities to potential occupations.

To do all this, they need reliable information about the characteristics of occupations today. From what we understand about the changing economy, we know our children must learn the value of postsecondary education and training and how to use the education and training system throughout their lives. In short, we must enable students to manage systematic transitions from school to work, whether they make that transition at the end of high school or after postsecondary education or training.

At present, no state, including Washington, has a comprehensive system that accomplishes this objective. The U.S. is one of the few industrialized nations without such a strategy. As a result, many of our young people drop out of high school—physically or mentally—because they fail to see a connection between doing well in school and obtaining a job that provides a decent living. Once out of school, they may miss opportunities to work in jobs related to the careers they most desire because they have not prepared for those jobs. Even when they seek additional education or training, they may not find their way into training programs that fit their aptitudes or employers' needs.

The Legislature took the first steps toward building a school-to-work transition system by adopting Goal 4 of education reform, which links educational performance to success in the workplace. Washington was also the first state in the nation to appropriate state funds to develop the elements of school-to-work reform, such as the integration of vocational and academic learning, development of flexible educational pathways, and creation of partnerships with local businesses and labor organizations for work-based learning.

In 1994, the Governor's Council on School-to-Work Transition created a vision for the system Washington should build. Its recommendations became the basis of the state's School-to-Work Transition Plan, which won the state a five-year, $27 million federal implementation grant in 1995.

Now the partners in the school-to-work effort are pursuing nine goals that will improve the school-to-work transition in Washington:

GOAL 1: Build a school-to-work transition system on the foundation of successful school reform to maximize the educational and career opportunities of young people.

GOAL 2: Support changes in school-based learning, including efforts to develop new educational methodologies, new teaching methods, and educational pathways that customize high school students' course of study and integrate academic and vocational education.

"In Washington, a student can reach the age of 18 without ever seeing connection between school and work. This is just a travesty. It's like trying to ride a bike by only reading a book."

Terry "Tim" Parsley, Manager, Vocational-Technical and Career Education, Evergreen School District, testifying September 18, 1996, in Vancouver at the Workforce Training and Education Coordinating Board hearing on the comprehensive plan.

"We need a model that will make employers partners with us in our training programs, not merely advisors in curriculum development."

Monte Multanen, Associate Dean of Vocational Education, Lower Columbia College, testifying September 18, 1996, in Vancouver at the Workforce Training and Education Coordinating Board hearing on the comprehensive plan.

GOAL 3: Broaden the development of work-based learning opportunities for K–12 and postsecondary students.

After earning a Certificate of Mastery, all students will engage in paid work or community service coordinated with their school course work.

GOAL 4: Expand and accelerate the development of industry-defined skill standards.

GOAL 5: Increase the capacity of business and labor to participate as school-to-work partners.

GOAL 6: Enhance the development and implementation of connecting activities as integral aspects of school-to-work transition.

GOAL 7: Address the needs of special populations who are currently underrepresented in technical training programs, higher education and high-wage work.

GOAL 8: Integrate statewide school-to-work responsibilities in the regular duties of the partners and institutionalize the partnerships.

GOAL 9: Create and conduct a public awareness campaign.

Tech Prep

State and federal school-to-work funds are not the only sources supporting the development of the school-to-work transition system. Tech Prep, funded by the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, is an ambitious example of school-to-work reform now underway.

Tech Prep couples the last two years of high school with the first two years of postsecondary education. Curriculum for specific Tech Prep programs integrates occupational and academic education and requires students to master competencies in communication, math, science, and technology. Courses emphasize higher-order thinking, problem-solving skills, teamwork, computer-assisted learning, and state-of-the-art technology.

Students who complete Tech Prep programs may receive an associate's degree, a certificate, or be credited with hours toward their apprenticeship. They can then either enter the workforce with better prospects for skilled employment or continue their education at a four-year institution. Tech Prep represents a major model of seamless transition from high school to postsecondary education. Tech Prep programs are currently in place at all of Washington's community and technical colleges, 138 school districts, several Native American and private schools and colleges, including private career schools, and at three public universities.

In addition to funding Tech Prep, the Perkins Act specifies requirements for the use of federal money in secondary and postsecondary workforce education programs. These requirements include standards of accountability and requirements for coordination. The Act also funds programs

to increase gender equity, improve school-to-work transition, and technological education.

The U.S. Department of Education administers the Act at the federal level; the Workforce Training and Education Coordinating Board is responsible for administering the Perkins Act in Washington. Perkins Act funding for Washington State was $19.3 million in 1996.

Horizontal Integration

Tech Prep provides a model of vertical integration by requiring articulation agreements between high schools and postsecondary schools that ensure students a complete four-year program without redundancies. Tech Prep is also a hallmark of horizontal integration—connecting elements of the same stage of education that might otherwise be fragmented. Academic and vocational education have traditionally been separate, parallel programs. Tech Prep integrates them with each other and connects education with work. But the benefits of this approach should not be limited to students enrolled in Tech Prep. All the pathways of the school should feature academic/vocational integration, offer the development of equivalent skills, and focus on the attainment of competency.

K–20 Network Technology Initiative

As we incorporate changes in how we educate students for work, technology will be an increasingly important tool. Recognizing its importance, the Legislature has inaugurated a K–20 technology initiative. The state's primary and secondary school systems, community and technical colleges, and institutions of higher learning have internal telecommunications systems. However, these systems are not linked by a common network—something that would enhance access to educational opportunities and improve coordination within the entire public education system. To address this, the Legislature in 1996 allocated $42.3 million to begin work on a unified K–20 telecommunications network with the goals of improving access, quality, student learning, partnerships, and efficiencies.

The Legislature's K–20 Telecommunications Oversight and Planning Committee (TOPC) oversees implementation of the system. The Higher Education Coordinating Board (HECB), Office of the Superintendent of Public Instruction (OSPI), and Information Services Board (ISB) have presented this committee with a plan for programming, locations, and a governance structure.

Both HECB and OSPI have education policy roles that will require coordination in new ways as a result of the K–20 network. Each is committed to user partnerships, innovation, and coordination of assessment and accountability.

Community and Technical Colleges

Most of the students who graduate from Washington's high schools today will continue to be enrolled in some form of postsecondary education and training. The largest number of these students attend the state's community and technical colleges.

Community and Technical Colleges

- Bates Technical College (Tacoma)
- Bellevue Community College
- Bellingham Technical College
- Big Bend Community College (Moses Lake)
- Centralia Community College
- Clark College (Vancouver)
- Clover Park Technical College (Tacoma /Steilacoom)
- Columbia Basin College (Pasco)
- Edmonds Community College
- Everett Community College
- Grays Harbor College (Aberdeen)
- Green River Community College (Auburn)
- Highline Community College (Des Moines)
- Lake Washington Technical College (Kirkland)
- Lower Columbia College (Longview)
- North Seattle Community College
- Olympic College (Bremerton)
- Peninsula College (Port Angeles)
- Pierce College (Tacoma)
- Renton Technical College
- Seattle Central Community College
- Seattle Vocational Institute
- Shoreline Community College (Seattle)
- Skagit Valley College (Mount Vernon)
- South Puget Sound Community College (Olympia)
- South Seattle Community College
- Spokane Community College
- Spokane Falls Community College
- Tacoma Community College
- Walla Walla Community College
- Wenatchee Valley College
- Whatcom Community College (Bellingham)
- Yakima Valley Community College

Washington's community and technical colleges are the backbone of the state's adult workforce training system. They are required to "offer comprehensive educational, training and service programs" to "every citizen, regardless of his or her academic background or experiences, at a cost normally within his or her economic means." Washington's 32 community and technical colleges collectively serve more than 190,000 workforce training students each year in 600 locations. An additional college, Cascadia Community College in Bothell, will begin enrolling students in the late 1990s.

This system provides training in approximately 200 technical and professional occupations. The colleges also provide related classroom instruction for apprenticeship programs; basic reading, writing, speaking, and math skills; retraining for dislocated workers; and the upgrading of skills for those already employed. Beyond its workforce training offerings, the colleges enroll students in baccalaureate transfer programs and provide opportunities for avocational course work. The colleges devote 40 percent of their course effort to vocational courses; 42 percent to academic transfer courses, 11 percent to basic skills, and 8 percent to developmental courses.

Competency-Based Education in the Community and Technical Colleges

Funds from the Carl Perkins Act are used by the community and technical colleges to help students obtain skills and competencies needed to work in today's technologically advanced society. Students with special needs receive special emphasis. The funds are also used to help colleges develop competency-based curricula and competency-driven training for instructors, counselors, and administrators. The State Board for Community and Technical Colleges conducted a needs assessment in 1995 and determined that while most campuses have individual programs in which instructors are using competency-based curricula, barriers exist to systemwide implementation.

Colleges' Role in Easing Transitions for Dislocated Workers

In a dynamic economy undergoing structural change, there is a vital need to help dislocated workers return to high-wage/high-skill jobs. In 1993, the Legislature enacted the Employment and Training Act (ESHB 1988), which supports training opportunities for dislocated workers at community and technical colleges. A portion of these funds has also been used to fund training at private career schools, increasing student choices, as well as to improve basic services of the Employment Security Department.

Under the provisions of this legislation, students are trained for newly emerging occupations or for those where growth is either occurring or is anticipated. Students can enroll in vocational training and instruction for state-approved apprenticeship programs. Dislocated workers who need additional preparation are offered adult basic skills, English-as-a-second-language, and "New Chance" transition services, which assess their skills and aptitudes,

provide career and labor market information, and explore educational and employment opportunities.

The schools work in partnership with Private Industry Councils and with the Employment Security Department's Job Service Centers. These provide labor market information and support services such as counseling and referrals to training and jobs, as well as unemployment compensation benefits to those who qualify. Job Service Center outstations on school campuses are helping dislocated workers and other students access these services.

Governance of Community and Technical Colleges

A nine-member State Board for Community and Technical Colleges, appointed by the Governor, oversees the system, which had a budget of $1.2 billion for 1995-97. Each college district has a board of trustees and a general advisory council and/or program advisory committees of private sector representatives to approve, design, and modify occupational programs.

Input from advisory committees is considered essential to quality training programs. Progressive advisory committees are taking an active role to bring their industry expertise to bear in designing curricula, identifying new technologies to be obtained, and participating in the hiring of key instructors.

House Bill 1988 lowered employers' unemployment tax by .12 percent and assessed a new tax of .12 percent to fund retraining and improvements to the Employment Security system. Funding is also provided for financial assistance, child care, and transportation. The current budget appropriates funds for 7,200 full-time equivalent students in fiscal year 1997.

Adult Basic Skills and Literacy Programs

Delivery of literacy services is a multifaceted effort in Washington State. Organizations that provide adult literacy services include community and technical colleges, community-based organizations, correctional facilities, libraries, volunteer tutoring programs, and corporate training programs.

In 1991, the Legislature passed legislation (ESSB 5184) that established a State Office of Adult Literacy (OAL) at the State Board for Community and Technical Colleges and created the Washington Advisory Council on Adult Education. This Council advises the Governor, the State Board for Community and Technical Colleges, and the Workforce Training and Education Coordinating Board on policies the state should pursue to strengthen basic skills education. The Council also offers advice on the development and implementation of measurable state literacy and adult education goals. OAL administers the federal Adult Education Act grant and prepares a five-year state plan for adult education.

A variety of adult learning and literacy services are funded by state and federal resources administered by OAL. These services include adult basic education instruction, English-as-a-second-language instruction, volunteer tutor coordination, offender education, education for institutionalized adults (county and city jails), Americorps literacy services, and Project Even Start. Project Even Start works to break the cycle of poverty by combining adult basic education, parent education, child care, and support services.

There are over 100 volunteer literacy programs in Washington State providing services to adult learners. Several community-based organizations have a dual role in delivering adult basic education classes and coordinating volunteer programs. Libraries also provide a valuable literacy service.

Washington's 32 community and technical colleges, however, are by far the largest adult basic skills provider in the state. Colleges offer basic education skills and English-as-a-second-language classes in learning centers located on the colleges' campuses, as well at a variety of urban and rural outreach sites such as public schools, housing projects, libraries, migrant camps, and prisons. Basic skills education instructors and tutors offer adult learners one-on-one assistance, small-group and classroom instruction, and access to computer work stations for self-paced instruction and practice.

Federally Funded Programs: A Fragmented System

We tend to think of workforce training and education in terms of the places where it occurs —high school, postsecondary campuses, apprenticeship training centers, and so forth—but at least some of the training and education that occurs at those and many other sites happens because of federal funding.

Over the last 30 years, the federal government has assumed an increasing role in providing training and employment services to targeted parts of the population. Among these groups are the economically disadvantaged, dislocated workers, veterans, the disabled, workers with basic skill deficiencies, and welfare recipients.

Although state agencies administer most of the programs that provide these services, federal laws and regulations set program eligibility, fiscal requirements, and program goals. Federal funding represents 22 percent of annual state spending for training and employment services.

The state's administrative structure tends to parallel the federal administrative structure. That structure is a complicated one. Services frequently overlap; for example, over 30 different programs in the state provide counseling and assessment services.

"We have seen tremendous progress in our housekeeping staff. They are able to meet our guest needs better, we have higher guest satisfaction, higher employee satisfaction, and a decrease in turnover. We see it as a tremendous win for us."

Christine Frisholz, Training Director, Sheraton Seattle Hotel & Towers, speaking about workplace literacy courses provided to housekeeping staff at a Workforce Training and Education Coordinating Board meeting in Aberdeen, May 1996.

Most federal programs are not designed in a way that permits their resources to be easily coordinated around customer needs. Each program has its own eligibility requirements, planning cycles, and accounting categories. Each imposes its own management requirements on the states.

From the customer's point of view, the result is bewildering. The number and specificity of individual federal and state programs, coupled with the variety of public and private institutions that provide services, present the customer with a maze of different eligibility requirements, forms to fill out, and hoops to jump through. These obstacles may discourage people from obtaining the services they need.

In 1994, Congress sought advice on how to streamline federal workforce development programs and to make training services more customer oriented. The U.S. General Accounting Office (GAO) testified to the "fragmented" system of categorical programs and recommended reducing the number of programs, creating clearer points of entry into and pathways between programs, and eliminating the conflicting administrative procedures and contradictory program goals and standards.

In 1995, House and Senate labor subcommittees sponsored reform legislation to consolidate approximately 80 job training and education-related programs into a single grant to states. Their work, supported by the Administration and members of both parties in Congress, described a workforce development system that would:

- Pass more authority and responsibility from the federal government to states and local communities (federal devolution);
- Provide greater flexibility to states in designing workforce systems that fit their needs;
- Eliminate duplication of effort and reduce the regulatory burden created by numerous categorical federal programs;
- Encourage greater coordination of job training and education-related programs; and
- Improve the effectiveness of federal workforce development efforts by focusing on program results.

Despite widespread agreement on the goals early in the process, Congress has not yet produced a program consolidation bill. Although in the future Congress may offer waiver authority to federal agencies, for the near term, at least, federal workforce development programs will not be consolidated. If the state is to reduce the impact of multiple federal efforts, it will have to seek solutions other than consolidation.

Following is a description of the largest federal employment and training programs, who they serve, and how state and local governments participate in program administration.

Job Training Partnership Act

The Job Training Partnership Act (JTPA) supports programs to prepare low-income youth, unskilled adults, and dislocated workers for jobs. At the federal level, the Act is administered by the Department of Labor. Washington's Employment Security Department administers the Act at the state level on behalf of the Governor. As required by the Act, the State Job Training Coordinating Council advises the Governor and Employment Security Department on the needs of disadvantaged and dislocated workers and the use of federal funds to meet those needs.

Federal funding for JTPA programs in Washington fell from $58.5 million in 1995 to $51.9 million in 1996 when the programs served approximately 30,300 participants. Most funds are channeled to local areas called "service delivery areas." Services are provided directly or through contracts with other agencies or community-based organizations. Each service delivery area is governed by a Private Industry Council (PIC) with majority representation from business.

The JTPA program focuses most of its services on economically disadvantaged individuals with multiple barriers to employment. These individuals include the long-term unemployed, welfare recipients, students at risk of dropping out of school, individuals who lack significant work history, those with limited English language skills, the disabled, minorities, older workers, and veterans.

JTPA has seven primary funding categories:

1. ***Title II-A services for low-income adults*** are individualized and include skills assessment, counseling to help adults make informed career choices, basic and occupational skills training, on-the-job training, and job search and placement assistance.

2. ***Title II-B summer youth programs*** provide paid work experience for low-income youth to explore career options and learn basic work habits. While employed, youth with low basic skills are enrolled in remedial education summer classes.

3. ***Title II-C year-round programs*** provide dropouts and at-risk students a variety of work-based learning opportunities and remedial education services tailored to meet their individual circumstances.

4. ***Title III dislocated worker programs*** provide rapid response and readjustment services, career counseling, retraining opportunities, and job placement assistance to eligible individuals.

5. ***Title IV-A migrant seasonal farm worker programs*** prepare low-income farm worker adults for higher paying jobs in emerging industries. These programs are administered by the Washington Migrant Council.

"Approximately 90 percent of the current AFDC population has a high school/GED or less. If we send them into the labor market with little or no education and training, we glut the lower end of the supply of workers and do nothing to meet the biggest needs of employers in our state."

Lyle Quasim, Secretary, the Department of Social and Health Services.

6. ***The Title IV-A Native American Employment and Training Program*** provides training resources to tribes, bands, and groups eligible for assistance.

7. ***Title IV-B Job Corps programs*** offer training to economically disadvantaged youth (14–24 years of age) at four residential sites in Sedro Wooley, Moses Lake, White Swan, and Curlew.

Washington State's 12 Private Industry Councils and their JTPA service providers contribute to many parts of the workforce training and education system. Although federal policies and procedures place considerable restrictions on the programs, Washington's PICs have participated in the effort to develop new partnerships in Washington's workforce development system. As noted elsewhere, they have been active in the development of the state's One-Stop Career Centers. PICs are working to connect with the state's school-to-work transition effort in many communities. In 1996, PICs chose to use the state's work-based learning definition to guide their federal and state funded summer youth employment programs.

Job Opportunity and Basic Skills Program

The Job Opportunity and Basic Skills (JOBS) Program was created by the federal Family Support Act of 1988 and implemented in Washington State in 1990. JOBS helps recipients of Aid to Families With Dependent Children (AFDC) fulfill their responsibility to support their children by preparing for, accepting and continuing employment. In 1995-96, the JOBS Program enrolled 56,768 individuals using $17.3 million in federal funds and $12.2 million in matching funds from the state.

The U.S. Department of Health and Human Services administers the JOBS program federally. At the state level, it is administered by the Washington Department of Social and Health Services (DSHS). The Employment Security Department (ESD), under contract with DSHS, delivers JOBS employment and training services through a statewide network of DSHS Community Service Offices and ESD Job Service Centers.

Based on an individual assessment, clients receive services from DSHS, ESD, community-based contractors, community or technical colleges, private career schools, and other service providers. Services include job search assistance, on-the-job training, work experience, job readiness training, basic education, skills training, and support services.

In order to meet increasing federal requirements and to ensure maximum participation, JOBS became mandatory for all AFDC recipients in Washington State in 1995. At that time, the program increased its emphasis on employment activities by the establishment of service "Pathways," which focused on getting the job-ready client back to work as quickly as possible. That strategy conserves funds for recipients needing greater investment (as in job readiness or skills training).

On August 22, 1996, a federal act was signed into law that will replace AFDC, JOBS, and Emergency Assistance (EA) and consolidate

funding into a annual block grant to states. Called the Temporary Assistance for Needy Families (TANF) block grant, the legislation ends welfare entitlement and sets a five-year lifetime limit on individual receipt of federal welfare benefits.

The intent of Congress is for states to assign the highest priority to requiring adults receiving welfare to be engaged in work activities. To meet the work requirements of this legislation, states must abide by certain limits but may structure the program as they desire. Once implemented, this new welfare-to-work initiative will significantly affect the state's workforce development system.

Simply put, the new legislation will require a significant number of people now on public assistance to work. This will create a new demand for employment and training services among those whose educational and skill deficiencies prevent them from obtaining work that pays a family wage. The training and support needed to prepare these claimants to be self-supporting must be delivered effectively and efficiently since no safety net exists for them beyond five years. There is no return to assistance afterwards—ever.

The employment and training needs of this population are diverse, and their needs for child care and postplacement follow-up services will be intense.

Rehabilitation Act

The federal Rehabilitation Act funds vocational rehabilitation services for people who have physical or mental disabilities that create substantial barriers to getting or keeping a job. The Department of Social and Health Services administers the program, which in 1994-95 had funding of $31.4 million from the federal government and $8.5 million from the state to serve 25,851 enrolled individuals. The Division of Vocational Rehabilitation's Rehabilitation Advisory Council, with members appointed by the Governor, advises the Department of Social and Health Services and the Governor on issues related to vocational rehabilitation.

"We have second-class employment and training system for welfare recipients."

Liz Schott, Attorney, Columbia Legal Services, testifying September 4, 1996, in Seattle at the Workforce Training and Education Coordinating Board hearing on the comprehensive plan.

Employment Services

Employers seeking workers and workers seeking jobs may turn to an employment service infrastructure created by the Wagner-Peyser Act of 1933. In 1995–96, the state's Wagner-Peyser grant of $15.9 million was used to provide a variety of labor exchange services to 255,000 individuals. Services are delivered through the Employment Security Department's 29 Job Service Centers. Specific services include:

- Accepting applications from job seekers and job listings from employers;
- Matching applicants with jobs;
- Screening, testing, and providing employment counseling;
- Providing job search assistance, labor market, and occupational information; and

Historically, the federal government has attempted to respond to economic disruptions by creating a new program for each new cause of unemployment.

- Supplying referrals to other training, jobs, or services.

In cooperation with the Department of Social and Health Services and the Private Industry Councils, Job Service Centers provide these services to targeted groups, such as disadvantaged workers and welfare recipients. Each Job Service Center has a Job Service Employer Committee, which advises the center about changes in local workforce demand, including plans to hire or lay off, and reviews local services.

Services to Unemployed Workers

The federal employment system described above was created nearly 60 years ago when the nation's economy centered on manufacturing. At that time, cyclical reductions in demand were the most common cause of unemployment. A laid-off worker had a reasonable expectation of returning to the same job or obtaining the same type of job in another firm.

While this scenario is still true in some occupations, many more layoffs today are due to structural changes. Laid-off employees will not be called back by companies that have closed or moved or eliminated the need for their skills. And workers who have lost these jobs often find the skills they have are obsolete in the market place.

Historically, the federal government has attempted to respond to economic disruptions by creating a new program for each new cause of unemployment. As a result, there are now several distinct programs for different kinds of unemployed workers, depending on whether they were laid off due to imports, defense closures, environmental changes, timber restrictions, or other causes of economic restructuring.

The result is a proliferation of separate programs that make it difficult for workers to know where to go to get the services that could help them. At the same time, restructuring has occurred in so many occupations and industries that even multiple targeted efforts leave many workers poorly served. Some may not be eligible for the kind of training or assistance they need, and the kind of assistance they are offered may not be what they want. The problem is compounded by the fact that true employment security today depends on a worker's ability to maintain marketable skills—a single retraining experience may not be enough.

One-Stop Career Centers

Although many parts of the system described above are engaged in redesigning their services to be customer driven, the most sweeping change has been the effort to create a whole new system that integrates the many programs. This initiative would place employment at the center of the system and make enhanced services available to all workers, laid off or not, through a network of customer-oriented career centers.

Since 1994, Washington has been planning major changes in the way that customers obtain employment and training services. The state agencies serving the largest number of customers—the Employment Security Department, State Board for

Community and Technical Colleges, Department of Social and Health Services, and Department of Labor and Industries—have been working with representatives of business, labor, the Workforce Training and Education Coordinating Board, and local JTPA service delivery areas to envision new ways of doing business that would both streamline the delivery and improve the quality of services.

Grants from the Employment Security Department in 1994 to a variety of agencies and organizations have spurred the testing of many new strategies for "integrated service delivery." Inspired by the goal of improved service to customers, new relationships have been formed among Job Service Centers, Private Industry Councils, community service offices, community-based organizations, community colleges, and others. Joining the effort in many areas were local businesses and chambers of commerce, unions, and private career schools. All of these local efforts have informed the work of the state agencies.

In addition, in 1994 the U.S. Department of Labor (DOL) awarded grants to states to plan One-Stop Career Center systems that: 1) are tailored to the needs of the local labor market and the state; and 2) will become part of a larger national system. States who accepted these DOL grants, including Washington, were expected to plan and implement a One-Stop Career Center system that met four principles:

- *Universality:* All population groups are to have access to a broad array of high-quality job seeking and employment development assistance. A One-Stop system should recognize and respond to a wide variety of access barriers, including language, disability, and emotional and self-esteem issues.

- *Customer focus:* Employers and job seekers are to have choices in where and how they obtain information and services and have access to the information they need to make informed choices about education and training options. The One-Stop Career Center system may be physically located at one comprehensive site, in many sites, through electronic and technological access points, or through a combination of these approaches.

- *Integration:* A One-Stop Career Center system is to offer a seamless approach to service delivery, including integration of program governance structures at both the state and local levels.

- *Accountability:* To ensure customer satisfaction, One-Stop Career Center systems must have clear performance-driven outcome measures and consequences for failing to perform on those measures.

Building on the integrated service delivery projects and the goals of the federal One-Stop Career Center system initiative, Washington is designing a multifaceted, multipartnered initiative. Its goal is to create a system leading to full employment for the people of Washington by:

- Integrating employment and training-related services so that they are easier to find and enter; and
- Consolidating programs where coordination and efficiencies can result.

International Air Academy: Responding to the Travel Industry's Need for Professionally Trained Employees

International Air Academy is an example of a private career school tailored to the needs of a specific industry. Founded in Vancouver in September 1979, the Academy now attracts students from throughout the United States and many other countries to its campuses in Vancouver, Washington and Ontario, California. Since 1980 it has graduated over 15,000 students as airline, cruise, and hotel/resort reservationists, travel and tour agents, ticket agents, gate and ramp agents, and flight attendants.

To ensure that the school's curriculum remains responsive to changes in the travel industry, the Academy utilizes an education advisory board of industry professionals. The school's instructors are also airline and travel industry professionals.

Currently the Academy offers an eight-week Airline Reservations and Airport Services program that prepares students for work in reservations, sales, and ticketing. A 20-week Airline/Travel Specialist program provides additional training in travel agent and tour planning. In addition, the school recently adapted its Airline/Travel Specialist program for at-home learning so a student can complete 20 lessons of home study followed by 8 weeks in residence rather than attending classes in Vancouver for all 20 weeks.

In September 1996, Washington submitted an application for federal implementation funds to create the One-Stop Career Center system. The Department of Labor has announced that the application will be funded beginning July 1, 1997. The application identifies ten objectives to be met to create the system:

1. Promote local system development;
2. Promote local and state strategic planning;
3. Develop a marketing and communication strategy;
4. Build a self-directed, self-service system;
5. Improve employer services;
6. Implement One-Stop performance measures;
7. Build information network/application standards;
8. Develop a competency assessment framework;
9. Improve labor market information; and
10. Provide local training and technical assistance.

Private Sector Training Providers

While most Washington residents will seek their postsecondary education and training from the public postsecondary system, many

others will utilize private sector providers of workforce training and education.

Private Career Schools

Private career schools are independent businesses providing occupational training. Nearly 300 such schools operate in Washington, and they provide between 150 and 175 different instructional programs to approximately 41,000 students. No public funds are appropriated for private schools, but eligible students may obtain federal grants and loans to pay for educational expenses if the school they choose has been authorized to participate in federal student aid programs.

Each school establishes its own admission requirements. These generally consist of a high school or equivalent diploma, an interest in the field, and a demonstrated ability to benefit from the program. Flexible program scheduling, small classes, and student-centered teaching techniques make these schools attractive to many.

The state's 57 cosmetology schools are regulated by the Department of Licensing. The remaining 230 private vocational institutions that grant certificates or diplomas are licensed by WTECB. Eight schools —a number that is small, but growing — grant associate and baccalaureate degrees. These eight are regulated by the Higher Education Coordinating Board.

As partners in the workforce training and education system, private vocational schools have volunteered to participate in many elements of the system's growth and development, including the development of the accountability system. Private career schools are represented on the WTECB interagency committee, and thus, participate in activities of the Board. In addition, as private sector organizations, they rely on labor market information to assure they provide training in the skills industry needs and strive to be competency based and customer focused.

Apprenticeship Programs

More than 380 apprenticeship programs within the state provide a combination of on-the-job training and classroom instruction in skilled construction, maintenance, and operating crafts. Programs are supervised by joint labor/management

Apprenticeship and Nontraditional Employment for Women

The Apprenticeship and Nontraditional Employment for Women (ANEW) is a partnership between organized labor, the Renton Technical College, and the Seattle-King County Private Industry Council, which provides Job Training Partnership Act funding for the program. ANEW provides technical and basic skills training to low-income women interested in entering the construction trades or other nontraditional employment, but who are deficient in specific skills. ANEW services also include counseling, life skills training, and job search and placement assistance with over 200 employers, unions, and apprenticeship programs.

"Companies that increased training investments were twice as likely to report increased profits and productivity than firms cutting training investments in both the short and the long run. As companies continue to reengineer and reorganize the workplace, investing in workforce training will become important."

"Economic Change: Separating Fact From Fiction." *Workforce Economics*. National Alliance of Business. June 1996.

committees that approve curricula, monitor quality, screen, and select applicants and ensure that skills are portable. Contributions from employers and journeyman workers fund the programs, which enrolled nearly 9,000 apprentices in 1996.

The Washington State Apprenticeship and Training Council oversees apprenticeship training programs statewide. The Council's administrative arm is the Apprenticeship and Training Division of the Department of Labor and Industries.

Despite the seemingly large number of apprenticeship programs, few occupations that could utilize apprenticeship as a method of preparing employees actually have apprenticeship programs. The principles of apprenticeship—learning while earning, mentoring, certifying skills, and ensuring skills' portability—could be extended to hundreds of other occupational learning situations for youths, as well as adults.

Over the last few years, the apprenticeship community has embraced its responsibility and opportunity to increase the number of minorities and women in apprenticeships. Many are actively involved in the development of school-to-work transition in their communities, working to ensure that pre-apprentice preparation is available to interested youth.

Employer-Provided Training

While the public education and training system prepares the largest number of Washington workers for first and new jobs, employed workers are more often trained by their employers. The vast majority of Washington employers offer their employees some sort of training.

Most commonly, employers train their employees while they are performing their regular job duties. An example is having a co-worker teach an employee how to operate a machine at the same time as producing a product. According to a 1995 survey of Washington employers, such on-the-job training is provided by 93 percent of all employers.

Less common is employer-provided training in a classroom, workshop, or seminar setting. Over the past year, 60 percent of Washington employers offered at least four hours of such training to their employees. Employer-provided classroom training is usually in general workplace practices such as safety and health or in job-specific skills. Only about 5 percent of employers instruct their employees in the basic skills of reading, writing, or math. Managers are about twice as likely as are production or service workers to receive classroom training from their employer.

Asked why they don't provide classroom training, slightly more than one-third of employers who do not offer such training indicate they are constrained by a lack of resources. One-quarter say they are concerned about employee turnover—providing skills to employees who will then leave.

To provide classroom training, employers most commonly turn to a private vendor or their own personnel. Only 10 percent of

all firms have an arrangement with a community or technical college, and only 5 percent have used a four-year college or university to provide classroom training to their current workers. A substantial proportion (40 percent) of employers who do not use a public provider say they believe public providers do not supply the kinds of training needed by their employees.

Overall, employer-provided classroom training is on the rise. In the last three years, one-third of Washington employers increased the number of employees they train. Almost all other employers held the number steady.

Job Skills Program

Sometimes employers can qualify for state assistance for their training needs to ensure that employment is developed or retained in the state.

The Job Skills Program (JSP) was created by the Legislature in 1983 to bring employers who have specific training needs together with educational institutions that can provide customized training. Administered by the Workforce Training and Education Coordinating Board, JSP supports customized training for new employees, retraining to prevent dislocation, and training to upgrade the skills of current workers.

During the last biennium, 22 JSP projects were funded. These involved 11 community and technical colleges, one community-based organization, and 70 businesses throughout the state. More than 2,100 employees received customized training. Of these, 449 were economically disadvantaged.

JSP has provided training for firms newly recruited to the state, such as Intel, and to support other economic development strategies, such as the spread of high performance work practices and the Key Sectors Program sponsored by the Department of Community, Trade and Economic Development (CTED).

Economic Development and Training

JSP illustrates the vital importance of connections between workforce development and economic development. Workforce training must be linked to economic development strategies so the supply of highly skilled workers is coordinated with demand and training efforts help generate family-wage jobs.

CTED has focused economic development resources on industry sectors identified as key to the state's economy. The key sectors are either young industries with potential for growth, mature industries which may be in need of major transformation to avoid downsizing, or a sector whose growth or retention has critical impact on the state's environmental or social agenda. CTED also considers the sector's possibilities for trade outside the state, potential for generating family-wage jobs, and the sector's value-added contribution to the economy.

The Workforce Training and Education Coordinating Board has worked with CTED,

the State Board for Community and Technical Colleges, and the Employment Security Department to direct training resources to the key sectors. Through what is known as the "Customized Training Initiative," the agencies are supporting key sector industry associations as they assess the training needs within their particular industry, identify training providers who can meet the needs, and broker training agreements between groups of firms and providers. Since 1995, 11 business associations have participated.

The state is involved in several activities to encourage companies to become high performance firms. For example, the state has helped assist firms attempting to be certified as meeting ISO-9000 standards. These are internationally recognized quality standards that are now frequently required for trade. CTED, the Workforce Training and Education Coordinating Board's Job Skills Program, and the community and technical college system have each contributed resources to help firms become certified. In another example, WTECB has prioritized JSP dollars for firms that are adopting high performance work practices such as continuous improvement.

The state will soon have an additional way of assisting firms. A public-private partnership was awarded matching funds for an industrial extension system by the National Institute of Standards and Technology. The system will help small manufacturing firms integrate the people, technology, workplace organization, and business aspects of change. Assistance in becoming high performance work organizations and training that will support changes in technology will be two of the services offered through the extension system.

Public/Private Partnerships

Understanding the connections between economic development and workforce development, and working to support these connections, are examples of how the public and private sectors can work toward mutual goals. These goals are discovered, and the strategies to meet them are designed most effectively when the public and private sectors are fully engaged in partnerships.

Washington's workforce training and education system is already very much a partnership between the public and private sectors. Private employers, along with the workers they hire, are the prime customers of the system. Private sector representatives advise the system's public institutions as members of the formal advisory boards mentioned in the preceding pages. Private businesses and unions engaged in training, placement, and other services are a vital part of the system.

The economic imperative for a trained and productive workforce, however, demands an even greater partnership between the public and private sectors. Consider these needs:

- If our schools are to produce people with the skills our employers need, the schools must know from employers what skills to teach and what standards to meet.

- If the skills of our graduates are to be state-of-the-art, those skills must be honed on state-of-the-art equipment, which only the private sector can identify.

- If students are to obtain on-the-job experiences that will help them develop skills and make career choices, those students must work with firms who can provide such experiences. There they must be taught and supported by adult co-workers who welcome their presence.

- In a world of limited resources and international economic competition, employers, workers, and educators must achieve a consensus on the need to devote our scarce resources to the task of workforce training and education. We must work together to design programs that are effective and affordable.

- With high demand for training, we must utilize well all the education and training providers in the state—public and private—who offer students,the skills needed in the new economy.

- If public policy is to be informed by the customer, then full partnerships of the public and private sector must occur at the policy level.

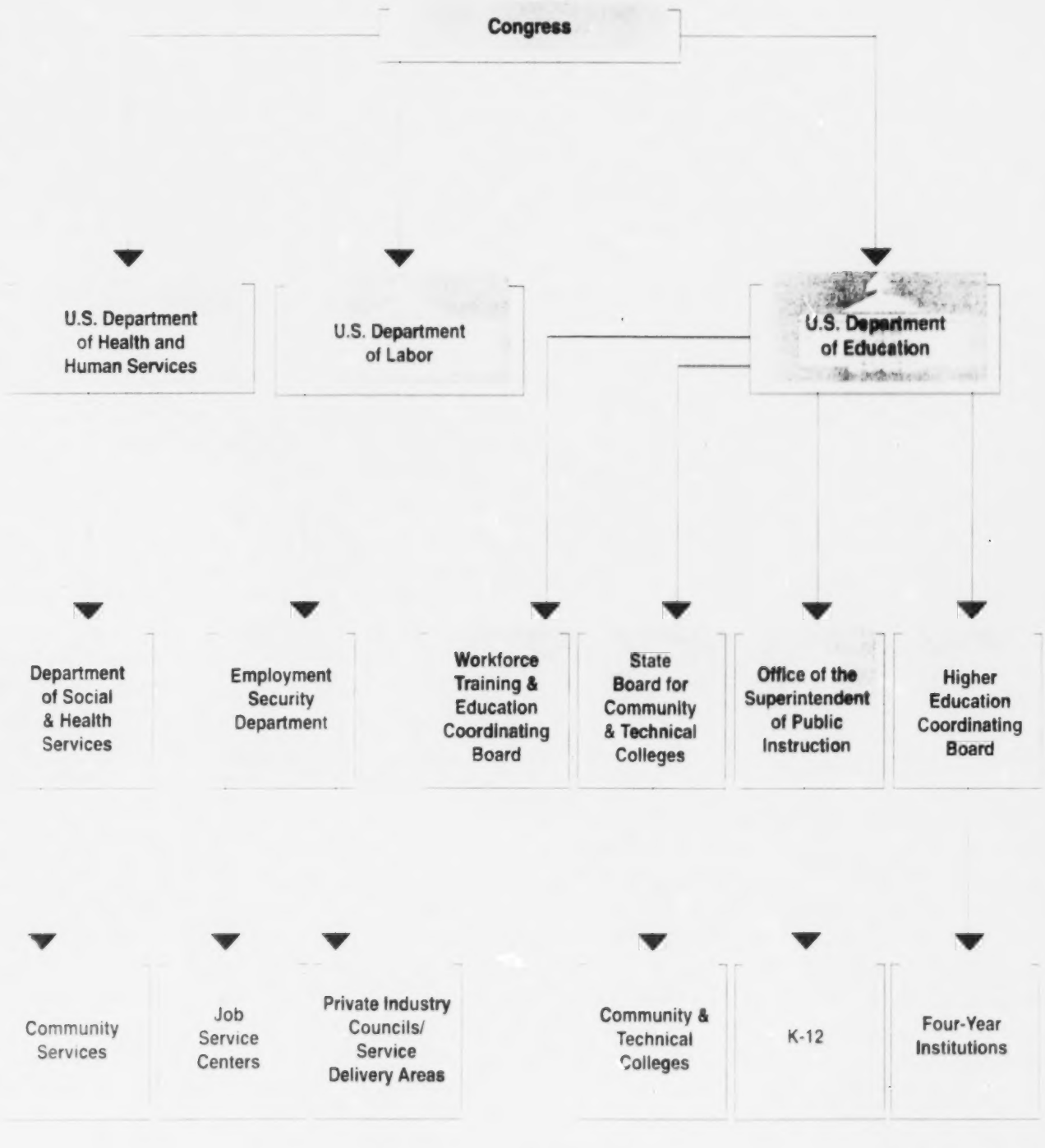
The existing relationships between the public and private sectors in the areas of workforce training and education are an excellent foundation upon which to build. Examples of successful partnerships include:

- A joint U.S. West and Communications Workers of America project to develop and implement a three-year telecommunications apprenticeship program. These partners approached schools to find partners, selecting the South King County Tech Prep Consortium. Together they will develop skills standards, curriculum, and training for youth interested in becoming network technicians. The company and union plan eventually to expand the model to other states.

- The Seattle-King County Private Industry Council is providing summer work experiences in partnership with the Seattle Public Schools' Work Training Program. This seven-week, JTPA-funded program links education and work experience for high school students. Individual and group training sites provide hands-on training and opportunities for academic credit. All classroom programs link to on-the-job opportunities and focus on personal goal setting, career planning, and skills development.

- The Boeing Company's partnerships with local school districts are focused on implementation of state education reforms that will build a base of high academic standards. Boeing supports the development of the state's school-to-work transition system and the development of high-quality applied academic programs that are integrated through Tech Prep. Boeing has provided more than $4 million over the past six years to support Tech Prep. Boeing

Flow of Federal Funding



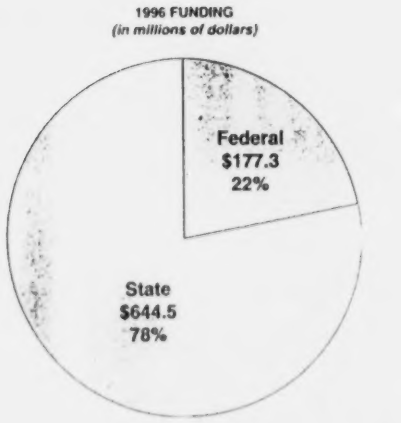
sponsors worksite internships for students and for teachers who then bring their experiences back into the classroom.

Many more such partnerships are needed to improve the transition from school to work, as well as to provide schools and training programs with the essential human and financial resources they need to fulfill their basic mission. The workforce training and education system can only serve the needs of its customers if all the stakeholders in the system work together.

Funding

The majority of public funding for workforce training and related programs comes from state and federal resources. Total funding for 1996 was $821.8 million. Of this amount, the state provided 78 percent ($644.5 million) and the federal government provided 22 percent ($177.3 million).

Workforce training and education expenditures (including federal funds) represent approximately 5 percent of the state's annual operating budget for 1995–96. Within that 5 percent, five agencies account for 97 percent of the total state and federal funding for workforce training and education. They are the State Board for Community and Technical Colleges, the Office of the Superintendent of Public Instruction, the Employment Security Department, the Department of Social and Health Services, and the Department of Labor and Industries. The chart below shows the dollars budgeted



Source: The Workforce Training and Education Coordinating Board

Most public funds for workforce development are state, not federal funds.

Annual Funding for Workforce Development by Agency

The following amounts represent only that portion of the agency's funding which is devoted to workforce training and education-related services.

	Millions
State Board for Community and Technical Colleges	$321.8
Office of the Superintendent of Public Instruction	$253.8
Employment Security Department	$ 99.3
Department of Social and Health Services	$ 73.4*
Department of Labor and Industries	$ 51.4
All Other State Agencies	$ 22.1

* *The Department of Social and Health Services' funds do not include funds for the Division of Developmental Disabilities*

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for workforce training and education by each of those agencies. These amounts include federal funds.

Impact of Initiative 601

The state's budget for the 1997–99 biennium will be constrained by the spending limits put into effect under Initiative 601. Preliminary estimates indicate the Initiative will limit state general fund expenditures to a level that may be insufficient to meet the cost of ongoing services and cost-of-living adjustments. As a result, there will be little opportunity to use the general fund to pay for new policies or programs or to expand existing programs.

The Initiative only limits spending—not revenue. The state will carry into the next biennium a budget surplus of approximately $500 million. In addition, forecasters say the state may collect about $500 million more in revenue during the next biennium than the state is authorized to spend. This would create a total surplus of one billion dollars. Because of this potential surplus, advocates of additional resources may turn to tax incentives that could affect private sector behavior without state expenditures. Also, the Initiative does not limit expenditures from certain funds outside of the state general fund. Advocates may support drawing upon or creating new dedicated funds.

WTECB's Role: Planning, Coordination, and Evaluation

The economic and demographic imperatives for workforce training and the fragmented nature of the workforce training and education system created a need for a coordinated, statewide approach to planning, coordinating, and evaluating Washington's workforce training efforts. The Workforce Training and Education Coordinating Board was established in 1991 to address these issues, and, in coordination with the other agencies responsible for training and education, to advise the Governor and Legislature.

WTECB's responsibilities cover secondary vocational education, community and technical college vocational programs, apprenticeships, programs governed by the Job Training Partnership Act, and programs for adult literacy. In addition, the Board regulates private vocational schools and administers the Carl Perkins Act and the Job Skills Program.

Developing and maintaining the comprehensive plan for workforce training is one of the primary tasks given to WTECB by its founding legislation. Other responsibilities assigned by the legislation are:

- Review the state's workforce training and education system for consistency with the plan;
- Promote coordination among workforce training and education programs at the state and regional levels;
- Assess the workforce training and education needs of employers and workers;

- Evaluate the results of the training system as a whole and establish minimum standards for evaluating programs within the system; and

- Advocate for the workforce training and education system to meet the needs of employers and workers.

During the past two years, since the publication of the original *"High Skills, High Wages"* plan, WTECB has (in addition to preparing this update of *"High Skills, High Wages"*):

- Administered and published *Workforce Training Results*, an evaluation of the state's workforce training and education system.

- Assessed the supply and demand for workforce training and published recommended strategies for bridging the gaps in *Workforce Training: Supply, Demand, and Gaps*.

- Participated in developing and managing the state's successful grant application for federal funding under the School-to-Work Opportunities Initiative.

- Led the creation of an accountability system for workforce development described in *Performance Management for Continuous Improvement*.

- Reviewed and approved the State Board for Community and Technical Colleges' and the Employment Security Department's plans for use of monies from the Employment and Training Trust Fund.

- Participated in a planning process for the creation of a state One-Stop Career Center system.

- Developed and adopted initial standards for data collection and maintenance by workforce training and education agencies.

- Completed the biennial update to the state plan required under the Carl Perkins Act.

- Continued the regulation and licensing of private career schools, and incorporated them more explicitly in system-building work.

Implications

The workforce training and education system is large and complex. It developed in stages over a long period as various needs emerged, so it has not been so much a coordinated system as a collection of related programs and institutions trying to achieve similar goals. WTECB and its public and private sector partners are working to build a coordinated system that can meet customer needs.

Only a partnership between the public and private sectors—both management and labor—will be able to provide the insight,

resources, and sustained commitment needed to build a workforce development system capable of meeting the challenges we face.

Washington's system of workforce training and education is advancing. We are taking major steps to be more customer-focused, accountable, and strategic. We must build on these efforts in our plan for the future.

Accountability

Performance Management for Continuous Improvement

In order to meet the challenges of the competitive economy and the changing composition of our labor force, the workforce training and education system must continuously improve its performance. What counts is results in meeting the needs of the customers—students, workers, and employers. The workforce development system must continuously measure results, identify areas to improve, and make the necessary improvements.

Past Accountability Efforts

Until recently, Washington State did not have an accountability *system* for workforce training and education. What we had were separate accountability activities for many of our workforce training and education programs.

Because these accountability activities were developed in order to meet separate program missions and requirements, they did not add up to systemwide accountability. There were no agreed-upon measurable goals for the workforce training and education system as a whole and no standards for collecting data in a consistent fashion from agency to agency. Often, data collection focused on inputs rather than results. Some workforce training and education programs did not evaluate what happened to their participants once they left their program, nor did they use program results to guide improvements. This is all beginning to change.

—Continued

Performance Management for Continuous Improvement

In January of 1996, after a nearly two-year effort led by the Workforce Training and Education Coordinating Board and supported through the National Governors' Association, the major workforce training and education agencies adopted the design for a new accountability system, "Performance Management for Continuous Improvement" (PMCI).[1] The PMCI framework was adopted by WTECB, the Office of the Superintendent of Public Instruction, the State Board for Community and Technical Colleges, the Employment Security Department, and the Department of Social and Health Services to guide their workforce development programs.[2]

The programs covered initially by PMCI are:

- Secondary vocational-technical education
- Community and technical college workforce training
- Adult Basic Skills Education
- Job Training Partnership Act Title II
- Job Training Partnership Act Title III
- The Employment Service
- Job Opportunity and Basic Skills
- Private career schools
- The One-Stop Career Center system

Having a systemwide framework will enable workforce development programs to better coordinate services to customers, and it will position Washington to request federal waivers from categorical program requirements or to respond to federal block grants. Improved coordination is imperative given the environment of declining federal resources and increasing concern about the standard of living of workers.

Workforce Development Goals

PMCI identifies seven goals for the workforce development system as a whole. These goals focus on the difference that workforce development makes in the lives of program participants, their families, and their communities. These goals are not static targets, but conditions that should be increasingly true for all people:

- *Competencies*: Washington's workforce possesses the skills and abilities required in the workplace.
- *Employment*: Washington's workforce finds employment opportunities.
- *Earnings*: Washington's workforce achieves a family-wage standard of living from earned income.
- *Productivity*: Washington's workforce is productive.
- *Reduced Poverty*: Washington's workforce lives above poverty.

- *Customer Satisfaction*: Workforce development participants and their employers are satisfied with workforce development services and results.

- *Return on Investment*: Workforce development programs provide returns that exceed program costs.

Because of their importance, measures for diversity—for people of color, women, and people with disabilities—are included for *all* the goals.

In addition to the seven systemwide goals, PMCI also identifies goals at two other levels: cluster goals and statewide program goals. There are four populations clusters:

- Youth who are in school;

- Youth who are out of school;

- Adult workers (including adult workers who are unemployed); and

- Adults with barriers to employment.

The goals for these clusters reflect different expectations given differences in the four populations' circumstances. The program goals reflect the programs' own expectations for their contributions to meeting the systemwide goals.

Performance Indicators

For each of the systemwide goals, no single quantitative measure can accurately depict the desired results. For example, for the goal of employment, a low unemployment rate may seem like the best measure. However, a low unemployment rate can be created by a population exodus from an area where total employment is stagnant or falling. Therefore, to measure the goal of employment, we need to measure the unemployment rate, total employment, and other variables as well.

Each variable is an indicator of how well the state is doing. Viewed in isolation they might be misleading, but together they paint a descriptive picture. The full PMCI report contains the complete list of indicators.

Performance indicators vary somewhat among programs and populations according to differences in their goals. Following are some of the most common types of indicators.

Competencies

- Educational attainment as measured by completion of degrees, certificates, and years of postsecondary education.

- Employer perception of former participants' skills and abilities as evidenced by survey responses.

- Percentage of participants obtaining Certificates of Mastery, skill certificates, and similar measures of adult basic skills as the standards and assessments are developed.

"We must reach 100 percent of the children we serve. Not 80 percent. Not 90 percent. One hundred percent. And no excuses. A child's social condition must not be an impediment to learning."

John Stanford, Seattle School Superintendent.

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Employment

- Rates at which program participants are hired and retained.
- Rates at which participants enter a field related to occupational training.

Earnings

- Median and average earnings, gains in earnings compared to preprogram earnings, and receipt of employer-paid benefits.
- Percentage of former participants with earnings above twice the poverty level for a household of three.

Productivity

- Employers' perceptions of former participant productivity as evidenced by survey responses.

Reduced Poverty

- Percentage of former participants with earned income above the poverty level for a household of three.
- Percentage of former participants receiving public assistance.

Customer Satisfaction

- Degree of satisfaction among former participants and their employers as evidenced by responses to survey questions concerning customer satisfaction of participants and their employers.

Return on Investment

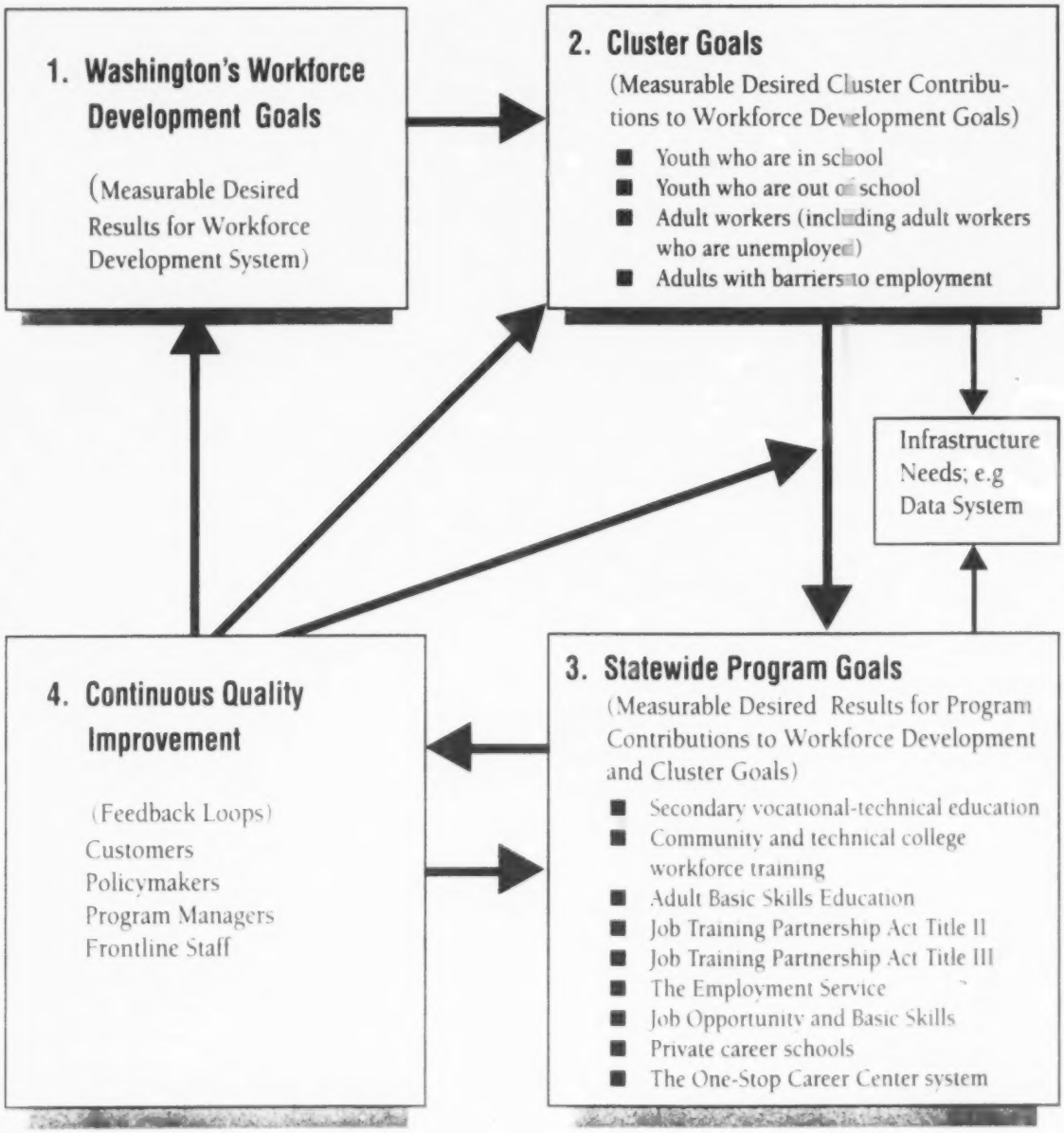
- Ratio of returns for workforce development programs—customer benefits, reduced public expenditures, and increased tax revenues—to program costs.

Standards

As the performance management system matures and baseline data are collected, each statewide program will develop floor and goal standards for selected measures. Floor standards are a level below which a program should not fall. Goal standards suggest a target to strive for. The goal standards will provide a "pull" for continuous program improvement. Standards will recognize differences in program inputs, such as participant demographics.

Almost all programs will have results falling somewhere between the goals and floors. The framework emphasizes continuously improving the results in this middle range. The framework does not focus on judging programs as to whether they are "good" or "bad," but instead recognizes that every program can and must improve its performance over time.

Performance Management for Continuous Improvement


1. Washington's Workforce Development Goals
(Measurable Desired Results for Workforce Development System)
2. Cluster Goals
(Measurable Desired Cluster Contributions to Workforce Development Goals)
Youth who are in school
Youth who are out of school
Adult workers (including adult workers who are unemployed)
Adults with barriers to employment
Infrastructure Needs; e.g Data System
3. Statewide Program Goals
(Measurable Desired Results for Program Contributions to Workforce Development and Cluster Goals)
Secondary vocational-technical education
Community and technical college workforce training
Adult Basic Skills Education
Job Training Partnership Act Title II
Job Training Partnership Act Title III
The Employment Service
Job Opportunity and Basic Skills
Private career schools
The One-Stop Career Center system
4. Continuous Quality Improvement
(Feedback Loops)
Customers
Policymakers
Program Managers
Frontline Staff

Evaluating Results

Continuous Quality Improvement is central to the PMCI approach to performance management.

In order to assess progress toward the goals and to inform continuous improvement efforts, workforce development agencies will collaborate to evaluate results at four levels:

1. *System evaluations of the workforce training system as a whole. Conducted by* WTECB, these evaluations will measure progress toward system goals and inform policy improvement.

2. *Evaluations of the four program clusters.* These WTECB-conducted evaluations will measure progress toward cluster goals and inform policy improvement.

3. *Agency program evaluations conducted by state agencies.* These evaluations will measure progress toward statewide program goals and analyze the relationship between program characteristics, including program subcomponents, and results. This information will be used for policy review and program improvement.

4. *Local program evaluations conducted at institutions such as common schools, colleges, and Private Industry Councils.* These evaluations will analyze local program characteristics and results in order to inform continuous improvement efforts at the local level.

In 1996, WTECB published *Workforce Training Results*, the first system evaluation under this framework. State statutes require WTECB to perform an outcome evaluation of the training system every two years and net-impact and cost-benefit evaluations every five years.

In 1995, WTECB adopted standards for agency program evaluations. The evaluations will analyze the relationship between program characteristics and postprogram results for former participants. To ensure the validity and reliability of findings, the evaluations will use widely recognized scientific procedures such as random samples. Agency program evaluations were reported under these standards for the first time in 1996. Statutes require agency program evaluations every two years.

In order to consistently measure results, there must be:

- Common standards for data collection and maintenance;
- Common definitions for the terms used in performance indicators;
- A minimum set of core data that is available on all participants;
- Common protocols for matching computer files to obtain postprogram results; and
- Common survey questions and sampling procedures.

In all cases, great care must be taken to not burden participants or frontline staff with requests for information and to protect participant confidentiality.

WTECB, in cooperation with the PMCI partners, has adopted initial standards for data collection and maintenance and has identified many of the outstanding issues and the parameters for reaching agreement. The standards for data collection and maintenance will be implemented first in the One-Stop Career Center system.

Continuous Quality Improvement

Continuous Quality Improvement (CQI) is central to the PMCI approach to performance management. There will be formal CQI efforts at all levels of the workforce development system. While the actions of frontline staff are key, all staff, as well as participants and employers, must be involved in improving results.

Continuous quality improvement is the process of evaluating performance, using the findings of the evaluation to develop a plan to improve results, implementing the plan, and evaluating the results in a continuous cycle of evaluating, planning, doing, and evaluating. Many institutions already have a CQI process in place. These providers will review and enhance their efforts and can be resources for colleagues just beginning their work.

There are many different types and names for CQI processes. One common example is total quality management. The PMCI framework does not assume any particular type of CQI process. However, a formal CQI process must satisfy four general criteria in order to meet the definition of CQI. There must be:

1. Management commitment and an organizational plan to address performance improvement;

2. Full involvement of all staff and all major functions and processes;

3. Utilization of recognized improvement approaches and methodologies; and

4. Utilization of valid and reliable data for measurement with appropriate analytical techniques.

CQI represents a culture change from traditional evaluation. If the PMCI framework is to be successful, cultural change will have to occur at both the state and local levels. Workforce development agencies and institutions will have to foster an environment attuned to internal and

Washington State Quality Award

The Washington State Quality Award, modeled after the prestigious Malcolm Baldrige National Quality Award, offers a thorough process for organizations to evaluate their efforts to achieve excellence in quality products and services and in their workforce. The goal of the award program is to promote and recognize the use of quality principles to enhance Washington's competitive position in the global marketplace. Award recipients become role models who share information on their successful quality strategies and help other organizations undertake their own quality improvement efforts.

external accountability for the purpose of improvement, and all participants will need to embrace joint accountability for results.

In order to promote this change, state agencies must develop technical assistance and incentives. Agencies will have to examine what behavior has been rewarded in the past and what needs to change about that reward system in order to foster cultural change. More trusting relationships between agency managers and staff must be developed. The workforce development system will have a climate that supports fact-based decision-making only when the system's culture says it's okay to reveal weaknesses.

State agencies will identify funds to support continuous quality improvement and to implement plans that have been developed through their CQI process, seeking additional funds as necessary and available to further their work. Agencies' discretionary budget decisions will be guided by CQI efforts to improve results.

Workforce Training Results

In 1996, WTECB published *Workforce Training Results: An Evaluation of Washington State's Workforce Training and Education System*, the first evaluation based upon the PMCI framework. *Workforce Training Results* examines the types of goals and indicators identified by PMCI and presents results within a continuous improvement framework.[3]

Workforce Training Results focuses on five of the largest programs: secondary vocational-technical education, training at community and technical colleges, and Job Training Partnership Act Titles II-A, II-C, and III.[4] These programs constitute about 60 percent of state expenditures on training. Secondary vocational-technical education and community and technical college training are open enrollment programs. In contrast, the JTPA programs serve economically disadvantaged individuals or dislocated workers only.

The evidence is based on survey responses from 1,900 Washington employers, about 1,100 former program participants from 1993–94, and nearly 400 potential participants. In addition, the study acquired administrative records on about 35,000 program participants. The full report provides a detailed discussion of the methods used and their limitations. Since programs offer different types of services to different populations of participants for different purposes, and the evaluation methodology differed somewhat from one program to another, caution should be exercised against making improper comparisons among and between programs.

Competencies

Based upon survey responses, most former workforce training participants believe the training they received improved their skills. Among those employed after their training, 59 to 75 percent (depending on the program) said they used the skills that they learned on the job. Among those who used the skills on the job, about 80 percent said the skills were very useful in performing their job duties.

While most participants felt the training they received was effective in improving their skills, there were significant pockets of participants who indicated they did not receive occupational or basic skills instruction. The majority of the JTPA participants for all titles indicated they did not receive basic skills instruction. Of the JTPA Title II participants, 41 to 48 percent reported they were not trained in occupation-specific skills, and 49 to 59 percent were not trained to use computers.

Many of the participants from all the programs continued to improve their skills and abilities by enrolling in college. Nearly 50 percent of the 1993–94 secondary vocational-technical completers were enrolled in either a two- or four-year college in Washington during the school year following high school graduation. About 15 percent of those who left other programs during the 1993–94 year were enrolled in a community or technical college during the following school year.

Employment and Earnings

The postprogram employment and earnings of former participants, in part, reflect their economic status prior to entering training. The employment and earnings outcomes for programs that serve a variety of people or individuals with a history of good earnings tend to be higher than the employment and earnings outcomes for programs that serve only low income individuals. Also, the lower wages for former participants of the two programs that serve only youth—JTPA Title II-C and secondary vocational-technical education—reflect the lower wages that young, entry-level workers generally receive.

JTPA Title III participants usually had a well-paying job before they became dislocated workers. Among those with reported employment six to nine months after leaving their program,[5] the median wage was $11.15 per hour, and the median quarterly earnings were $5,060. By the fall of 1995, 84 percent of the 1993–94 participants reported being employed. Among those employed, 66 percent had employer-provided health benefits and, 47 percent had pension benefits.

Community and technical college workforce training participants who had reported employment six to nine months after leaving their program had a median wage of $9.25 per hour and median quarterly earnings of $3,903. By fall 1995, 80 percent of the 1993–94 participants reported being employed. Among those employed, 56 percent had employer-provided health benefits, and 39 percent had pension benefits.

JTPA Title II-A participants who had reported employment six to nine months after leaving their program had a median wage of $7.07 per hour and median quarterly earnings of $2,697. By fall 1995, 59 percent of the 1993–94 participants reported being employed. Among those employed, 31 percent had employer-provided health benefits, and 16 percent had pension benefits.

JTPA Title II-C participants who had reported employment six to nine months after leaving their program had a median wage of $5.72 per hour and median quarterly

earnings of $1,313. By fall 1995, 60 percent of the 1993–94 participants reported being employed. Among those employed, 29 percent had employer-provided health benefits, and 17 percent had pension benefits.

Secondary vocational-technical education is somewhat different from the other programs in that virtually none of the participants was attempting to support him or herself, let alone a family, before entering the program. Six to nine months after completing a sequence of vocational courses, individuals with reported employment had a median wage of $6.00 per hour and median quarterly earnings of $1,593. During the year after graduating from high school, 91 percent of the 1994 graduates either had reported employment or were enrolled in postsecondary education.

Productivity

Among employers who felt they were in a position to evaluate the productivity of former training participants they had recently hired, 71 to 84 percent (depending on the program) were satisfied with the former participants' productivity. Seventy-one percent of employers were satisfied with the productivity of new employees who had recently completed a JTPA program; 75 percent were satisfied with the productivity of new employees who had recently completed secondary vocational-technical education; and 84 percent were satisfied with the productivity of new employees who had recently completed either community or technical college workforce training or a private career school.

Reduced Poverty

Workforce Training Results reports the percentage of former participants with reported employment who had sufficient individual earnings the third quarter after leaving their program to support a family of three above the poverty line (no matter the size of the participant's own family). The results varied considerably between programs.

The earnings of former participants of secondary vocational-technical education and JTPA Title II-C programs reflect the participants' youth and inexperience. Only 14 percent of secondary vocational-technical education participants and 18 percent of JTPA Title II-C participants reported earnings sufficient to support a family of three above the poverty line.

Results were higher for participants of other programs. Among those reporting employment three quarters after leaving their program, 45 percent of former JTPA Title II-A participants, 64 percent of former community and technical college training participants, and 78 percent of former dislocated workers participating in JTPA Title III earned enough to support a family of three above the poverty line.

According to survey responses, just 8 percent of former JTPA Title III participants had received public assistance during the last 12 months (either Aid to Families with Dependent Children; Food Stamps; or the Women, Infants, and Children Supplementary Food Program). Sixteen percent of the

former community and technical college participants had received public assistance, and 36 and 46 percent of the former JTPA Titles II-C and II-A participants, respectively, had received some form of public assistance in the last 12 months.

Customer Satisfaction

Participants

According to the survey responses, former training participants were generally satisfied with their training program. Fifty to 65 percent felt that the program definitely met their objectives, and about one-third thought the program partially met their objectives, compared to only 8 to 15 percent who felt that their objectives were not met at all. By a margin of at least three to one, more reported being very satisfied with the overall quality of their program than reported being dissatisfied.

Former participants were particularly satisfied with the quality of the teaching. And most of the former participants were satisfied with the degree to which the training provided them with practical skills that employers want. While most of the training participants were satisfied with the mix of classroom and on-the-job training they had received over the years, a substantial percentage would have preferred more on-the-job or work-based training.

The program areas that appear to be most in need of quality improvement are the support services related to the training, especially assistance with finding a job. Generally, across the programs surveyed, the former participants rated job placement assistance as the support service with which they were least satisfied.

Employers

Employers responded to the survey that they were generally satisfied with the quality of their new employees who had recently completed one of the workforce training programs included in the study. From 59 to 83 percent of the employers were satisfied with the overall quality of these new workers, and at least 70 percent were satisfied with their job-specific skills.

Consistently, employers were least satisfied with three types of skills among their new employees who had recently completed one of the workforce training programs included in the study: computer skills, math, and problem solving or critical thinking.

Return on Investment

Under contract to WTECB, Battelle Memorial Institute is currently conducting a net-impact and cost-benefit analysis of major workforce training and education programs. Results from this analysis are expected during early 1997.

Areas for Improvement

Overall, the results are fairly positive for the training system as a whole, especially regarding the quality of instruction. Most participants were generally satisfied with

Many participants would like their training programs to provide them with more help in finding a job.

their program experience. There are, however, certain areas that could be improved.

One area that stands out across programs is job placement assistance. Many participants would like their training programs to provide them with more help in finding a job.

Many employers would like to see improvements in the computer, math, and problem solving ability of new employees who had recently completed one of the training programs included in the study. This concern is relatively greater regarding new employees who had not completed postsecondary workforce education. Considering all job applicants, not just individuals who had recently completed one of these training programs, employers would like to see improvement in occupational-specific skills, problem solving ability, and work habits and attitudes.

Employer responses indicate that substantial improvement is needed in the ability of public education and training providers to meet employer needs for training their current workers. Employers are particularly concerned with the ability of public providers (schools, two- and four-year colleges, JTPA programs, and others) to supply the type of training their employees need, and they are also concerned about the cost and convenience of the time and location of the training.

The results suggest that JTPA Title II programs that target low-income individuals should provide more types of services to more participants, and perhaps, for a longer period of time. However, it must be noted that JTPA programs operate with fewer resources and less time than do secondary or postsecondary workforce training programs.

Services that a substantial percentage of JTPA participants felt they needed more of included basic skills instruction, computer training, training in specific occupational skills, career counseling, job placement assistance, and information about other government programs. JTPA Title II-C for youth, in particular, might do more to provide occupational and especially basic skills instruction. JTPA Title II career counseling, occupational training, and job placement assistance might do more to target occupations and industries that pay a higher wage.

In addition to job placement assistance, a substantial percentage of JTPA Title III participants reported they needed more help in obtaining information about other government programs, financial assistance, and career counseling.

Community and technical colleges could do more to meet student needs for career counseling and advice on course selection at the time students enter programs. During training, colleges could target computer training for improvement and provide more opportunities for work-based or on-the-job training. Near the end and after training, colleges could do more to assist students with finding a job.

Finally, if state policymakers and administrators are interested in using postprogram information to evaluate the effectiveness of K–12 education, substantial improvement is necessary in collecting and maintaining a common set of school data. Based upon the limited research that could be conducted for this study, schools could do more to improve the computer, problem solving, and basic skills of secondary vocational-technical education completers. Also, secondary vocational-technical education might do more to target higher paying occupations.

Section Six Footnotes

Accountability

1. For the complete report see, *Performance Management for Continuous Improvement*, Workforce Training and Education Coordinating Board, 1996.

2. The term "workforce development" is used instead of "workforce training and education" to reflect the inclusion of some programs and services, such as the Employment Service, that do not provide actual training but instead provide training-related services.

3. Some of the performance indicators used in *Workforce Training Results*, however, are not the same as those in the PMCI report since the evaluation began before the PMCI report was completed.

4. A second edition of *Workforce Training Results* that will add Adult Basic Skills Education is planned for early 1997.

5. The term "reported employment" refers to employment reported in the unemployment insurance wage files. The wage files contain data on between 85 and 90 percent of all employment in the state.

Recommendations

To reach our goal—a world-class workforce—we must plan our journey carefully. To get there we will have to pull together. We cannot afford the high cost of duplication, fragmentation, and working at cross purposes. We must make sure that our destination is widely endorsed with a vigorous public awareness campaign that both informs the public and listens to it as well. We must have a sturdy vehicle that will get all of us through to the goal. That vehicle must be driven by the customers of the system; its key is accountability. To guide us along the way, we must have a clear map—a set of strategies—and mutually defined signposts that will tell us we are making progress toward our goal. And finally, we must demonstrate commitment to the journey. The following chapter defines our destination, our vehicle, the milestones, and our commitment.

Destination: A World-Class Workforce

In the coming century, the driving force of Washington's economy will be the human mind—not, as in the past, our natural resources or even our industrial capacity. In an age of global competition for good jobs, the countries that thrive won't be those with the most minerals or the mightiest military. The superpowers of the future will be the countries with the best educated, most innovative, and most productive people.

—Continued—

Too many high school students still lack motivation and support and leave school before graduating.

This economic fact of life is a mandate for improving our workforce training and education system. The prosperity and security of our country depends on our ability to become a nation of learners and teachers.

The Starting Line: What Can We Build On?

Washington already is in the forefront of the transition to higher standards of educational achievement and lifelong learning.

- We are in the midst of a major restructuring of public education to raise academic achievement expectations and results for all students. Our reform will encourage all students to learn as much as they can, as fast as they choose, because it will measure students' mastery of skills and knowledge rather than the amount of time they spend in class.

- Together with our secondary schools, our community and technical colleges are at the forefront of the movement to rethink and redesign the links between secondary and postsecondary education.

- We created a substantial number of retraining opportunities for the dislocated workers who want retraining.

- Both secondary and postsecondary education are also partners with business and labor to connect learning with career development. To do this, they are creating new links between classrooms and workplaces for all levels of education and training.

- Our Employment Security Department is engaged in a collaborative effort with other state agencies and local service deliverers to provide coordinated and accessible employment and job training services to our state's employers and job seekers.

But these are just some of the first steps on a long road.

Obstacles in Our Path: What Must We Overcome?

From a customer's point of view, most of the changes we are working toward remain invisible.

Too many high school students still lack motivation and support and leave school before graduating. For those who stay, it is still too likely they will graduate from high school unprepared for entry-level work and unaware of the skills required by today's employers. Unhappily, the same is also true for graduates of postsecondary education. Too few graduates today fully understand the connection between their education and their economic future.

Many adult customers of the workforce development system still face a dizzying array of separate programs, a forest of federal and state agencies, and scores of public and private educational institutions and training programs—each with different eligibility requirements, different forms to be filled out, and different hoops to jump through. Our programs do not always have sufficient capacity or focus to meet people's needs.

The result is that far too many people never find the training and education they need. Today, unfortunately, all the following scenarios are possible:

- A young woman drops out of school or graduates without a clue as to what kind of work she wants to do or what skills she will need to get a good job.
- A worker who spent most of his life earning good money in a mill or factory that is closing learns that his skills will not get him a new job.
- Adults who have recently arrived in this country are overwhelmed by both the language barriers and the educational requirements necessary to succeed in the land of opportunity.

Many of these people historically relied on public assistance as a safety net. The nature of this safety net has changed with federal welfare reform, increasing the imperative that these individuals find their way to the appropriate workforce development services, so that they are able to support themselves.

Each of these people need to know what educational opportunities are available to them. They need information that will help them judge what is the best training strategy for them. But too often they face a host of obstacles that separate them from the training, education, and placement services they require to attain the jobs they need and are capable of doing.

These obstacles are obvious and varied. Among them are:

- *Fragmentation*: Too many individual programs and too many individual streams of funding cause service providers to specialize only in certain parts of the population or specific kinds of services. This results in clients who must "shop" to find the services they need among specialty-service providers.
- *Complexity*: Fragmentation might be less of a problem if customers had a map of the system, but too often they have no guideposts at all. They do not know what programs exist, how to determine if they might qualify for the service, or how to press on if the first stop they try does not meet their needs.
- *Duplication*: Even customers who do find their way through the forest of individual programs often do so by filling out endless numbers of forms, registering, and re-registering the same information with each service provider.
- *Preconceptions*: Too often customers fail to pursue the programs that might help them because they fear being stigmatized as products of vocational education. Convinced that society only values the baccalaureate degree, many people pursue academic education without regard to the development of job skills needed by employers. Then, after years of investing in academic degrees, they find themselves no closer to attaining the kind of jobs they wanted.

What Will the Destination Look Like?

We envision a workforce training and education system that supports a high-wage, highly skilled workforce. Such a system will:

- Be customer driven—organized around the needs of students, workers, and employers;
- Be easy to find and enter and be designed so that people can move easily among and between programs and between programs and the workplace;
- Meet the needs of all learners, including those who have been underserved in the past because of racial, ethnic, or cultural differences; gender; disability; or learning style;
- Provide support services such as career counseling, child care, and financial aid to those who need them;
- Be competency based, so that all students are able to master the skills and knowledge they need in as much or as little time as they need to do it;
- Be staffed by people who are prepared to teach a diverse student body and who have relationships with employers who help them stay up to date on changes in their fields;
- Be coordinated with private sector training and education programs, with social and other services, and with economic development strategies;
- Be based on full partnerships between business, labor, and training and education representatives;
- Coordinate state goals and objectives with local discretion on how the goals can be reached;
- Promote the dignity of work and the value of workforce training and education;
- Rely on the best labor market information, so that people acquire skills that local industries need;
- Provide students and workers with a foundation of basic skills that equip them to be lifelong learners; and
- Be accountable for results and committed to using outcome measures to improve program quality continuously.

- *Stereotyping*: Customers may not consider certain vocational education programs because they do not feel they "belong" in them. Stereotypes about gender, ethnicity, age, race, and disability on the part of students, educators, parents, employers, and co-workers play a significant role in determining whether students see a career as open and inviting or as unattainable and hostile.
- *Personal Barriers*: Many customers may face personal barriers, including obstacles that are financial, psychological, related to physical immobility, or broader family needs, such as adequate child care.

The Signposts of Progress: Seven Goals for Workforce Training and Education

This plan sets forth seven overarching goals for the state's workforce training and education system. These goals are not static targets, but conditions that should be increasingly true for all people:

Competencies: Washington's workforce possesses the skills and abilities required in the workplace.

Employment: Washington's workforce finds employment opportunities.

Earnings: Washington's workforce achieves a family-wage standard of living from earned income.

Productivity: Washington's workforce is productive.

Reduced Poverty: Washington's workforce lives above poverty.

Customer Satisfaction: Workforce development participants and their employers are satisfied with workforce development services and results.

Return on Investment: Workforce development programs provide returns that exceed program costs.

The following pages present our plan for the journey, the recommendations made by the Board about how we reach these goals. Specific action steps are in bold italics.

The Vehicle: A Customer-Driven System of Workforce Training and Education

Drawing the Map: Public Engagement in the Process of Improvement

Providing a Road Map for Customers to Access Services and Become Involved in Change

For customers to drive the system, they must be integral to its planning, implementation, and evaluation.

Most of us are keenly aware of changes in the state economy. Many have experienced change through restructuring, layoffs, and technological advances as large and small corporations toil to meet the demands posed by an increasingly competitive global economy. These changes can be unsettling, especially for individuals without the high levels of skills and knowledge needed for the jobs being created by the employers of Washington State.

We know the road to success for our children begins in school through higher standards of achievement and preparation for the world of work, but often we do not realize that engaging in lifelong learning will keep us and our employers competitive in the face of highly skilled and/or lower paid workforces abroad. We—workers and employers—must continue to expand our efforts to make this workforce more competitive, innovative, and efficient through training.

Public and private employment and training service providers, faced with funding limitations and responding to the needs of a growing and increasingly anxious workforce, are striving to develop a more efficient and accessible customer-driven workforce training and education system. However, the systemic changes will mean little unless the public knows about them and has signposts to understand what the change means to them, their families, workplaces, and communities. The Workforce Training and Education Coordinating Board (WTECB), in conjunction with public and private partners, parents, and the media, will continue to encourage public discussion of the need for higher levels of skill and knowledge and the importance of personal and corporate responsibility for lifelong learning. ***It will implement a public awareness strategy and, every two years, will measure progress in public awareness of the issue and people's involvement in the workforce development system.***

"Education is not a K–12 or K–16 project, it is a lifetime process, a journey that never ends."

Clyde A. Stevenson, Aberdeen, commenting on the "High Skills, High Wages" draft, September 1996.

The *1996 Workforce Training Results* survey showed that employers face significant difficulties finding new employees with the occupation-specific skills needed for the jobs being created by the state's economy. In the past, we have defined academic success as the successful completion of a baccalaureate program, but employers increasingly need new workers with vocational certificates and degrees. *Workforce Training Results* also showed that some individuals are unaware of the availability of training to help them increase their skills and knowledge and how the training, financial aid, and support services such as transportation and child care can be accessed.

WTECB and its partners must emphasize the skills and educational qualifications employers seek for the jobs available in Washington State. The agency and its partners must make a special effort to inform individuals who have the greatest need for improving their skills about programs to help them become productive members of the workforce. ***Outreach efforts should be expanded to include emerging technologies such as the Internet and information kiosks. We must also reach community organizations, groups representing people of color, and people with barriers to participation.***

There have been significant discussion and efforts to change the workforce development system to make it more efficient, accessible, effective, flexible, and customer-service oriented. For example, the One-Stop Career Center initiative proposes a higher quality, more user-oriented, and fully integrated workforce development and labor market system that will increase job placements and access to services, improve customer satisfaction, adjust to decreasing resources, and ease employment transitions. ***WTECB and its partners must engage community and state leaders and service providers in discussions about the changes needed and anticipated in the workforce development system to help it better meet the needs of customers.*** This work will include informing the public of the changes that have been made so that they can take advantage of them.

Redefining Academic Success

Academic success in the past often has been defined as the successful completion of a baccalaureate program. The most valued students in our high schools were those who were expected to go on to college; all others were relegated to lesser status. The public wants higher performance and achievement by all students, not just those heading to college, and parents want their children to obtain skills allowing them to succeed in college and in the workplace.

Most parents recognize that their children need higher levels of skill and knowledge and better preparation in school. Recent surveys conducted by Partnership for Learning in Washington State and by Public Agenda throughout the nation show that:

- Parents believe that schools do a better job of preparing college-bound students than students not bound for college;

- Technological change requires all students, not just college-bound students, to achieve at higher levels;
- Today's high school graduates need higher levels of skills and knowledge than graduates a generation ago; and
- One of school's primary purposes is to prepare students for work.

Connecting with School Reform and Welfare Reform

If parents' goals are to be realized, there must be a deeper public understanding that local communities must be involved in school reform if it is to succeed. Site-based management, effective accountability measures, and successful design and implementation of a school-to-work transition system will require a larger personal commitment from parents, businesses, volunteers, and media leaders to strengthen the connections between schools, students, and communities. ***WTECB and its partners must continue to inform students, parents, educators, business, and labor about why changes are needed in the way our children are educated and to encourage community involvement in school reform initiatives, including developing school-to-work transition systems in school districts throughout the state.***

In addition, while we focus on the *future* workers of the state, we must remember the crucial needs of some parts of *today's* workforce. We must particularly address the needs of those on public assistance who may need training to prepare them for family-wage jobs but for whom federal support during training is of limited duration. We will need to explore innovative solutions and should support the efforts of state and local, public, and private partners to collaborate on this task.

Creating a Coherent System

Overall, our challenge is to develop a seamless, accessible, and responsive system of workforce training and education out of the program puzzle pieces that are currently scattered among state, federal, and local agencies, institutions, and businesses. Each program must be a planned part of a coherent system. At the same time, we must cut through the red tape that stifles local creativity and innovation.

The picture that must emerge from today's puzzle pieces is this: all Washington citizens must have access to a training and education system that is customer-driven, accountable for results, and built on active partnerships among business, labor, students, parents, community organizations, education, and government.

To assemble this picture, state policy leaders must continue their work to refine a vision of a coherent education system for lifelong learning. ***The Governor and state-level policymakers involved in education should continue to convene annually to ensure they are working to clarify and advance vision.*** The vision must explain how the parts of the system relate to each other and how their work contributes to the whole. ***The Governor and Legislature must continue to insist that the system partners work***

"As a prevention method, public schools must improve testing for and accommodating learning disabilities. We cannot continue to see as much as 38 percent of the AFDC caseload having undiagnosed learning disabilities."

Jean Coleman, Director, Welfare Rights Organization Coalition, commenting on the "High Skills, High Wages" draft, September 1996.

together, consolidating and reducing duplication whenever possible, so that even though the system remains complex and multifaceted, its benefits are clear to the public. WTECB recommends that the Governor and the Legislature act with caution in creating additional policy bodies.

Rules of the Road: Measure Performance and Enable Smooth Transitions

With a common vision and widespread commitment to it, we can consider the principles by which we will operate. Two principles that will help ensure our effectiveness and efficiency in all our work are measuring performance and enabling smooth transitions.

Measuring Performance Through Competency-Based Learning

Competency-based education focuses on performance. It emphasizes the translation of learning into demonstration of knowledge, never assuming that the ability to restate a lesson is the same as the ability to use it. In competency-based education, teachers and students alike focus on the demonstration of knowledge and skill, so that learning can be measured in terms of mastery rather than length of exposure.

Education reform in Washington is focused on defining core competencies that all students should know and be able to do and developing assessments to measure those competencies. The Commission on Student Learning is endeavoring to change primary and secondary education from a system based upon the time students spend in class to a system that is based on the ability of students to demonstrate the mastery of specific skills and knowledge. ***The work of the Commission must result in assessments of core competencies that truly measure student performance. These assessments must be used to assess the "basics" throughout the workforce development system for customers of all ages.***

To ensure that our work genuinely increases student options, we must verify that our state's work integrates with nationally developed standards and assessments and reflects national work on standards of accountability and the use of technology. ***Washington State should consider voluntarily submitting its standards for review by ACHIEVE, created by the National Governors' Association and chief executive officers to facilitate the improvement of education across the nation.***

The community and technical colleges also should continue their work to establish competency-based learning throughout their system. A survey conducted for the State Board for Community and Technical Colleges in 1995 showed that most campuses had individual vocational programs in which instructors were using competency-based curricula but that barriers existed to statewide implementation. The community and technical colleges should continue their progress by acting on the recommendations of their study.

Similarly, the Higher Education Coordinating Board should continue its work to establish competency-based admission

standards for the state's four-year colleges and universities.

Skills Standards

The community and technical colleges are also the state's lead partner in the development of skill standards. ***This work must involve the full partnerships of business, labor, and others to determine the attributes of successful workers.*** By clearly articulating their standards, industry can communicate to educators the critical workforce development needs in the state. It is critical that business and labor representatives, including frontline workers, participate in the development of the standards.

The assessments and certifications that are created when skill standards are developed provide an ongoing means for aligning educators' and industry's expectations of competency standards, even when conditions change. Assessments must result in certification that is valid among all education and training agencies and employers. Educational competency standards must align the Certificate of Mastery, high school graduation, college admissions requirements, and the host of degrees that certificate postsecondary graduation. In turn, those educational standards must be aligned with the skills certified in occupations as workers progress through their careers. ***The relationships between traditional academic certification and new skills certificates must be similarly defined through career paths of all occupations.***

This work must be accomplished as quickly as is feasible. The State Board for Community and Technical Colleges must continue to lead training and education agencies and the private sector in developing skill standards and certificates for occupational clusters. And they must do their work in collaboration with those who will implement it in the field. ***Within the next two years, competency standards should be widely recognized and accepted throughout the training and education system and in the private sector as the measure of what students should learn.*** Skills and knowledge should be recognized no matter where or how they are obtained. Additional work will be needed to maintain the alignment of education and industry as the economy evolves.

Competency-based learning and skill standards—fortified by employer hiring and promotion practices that reward achievement—can make the training and education system truly seamless.

Vertical Integration to Enable Smooth Transitions

In addition to a focus on competencies and performance, we must establish connections that provide smooth transitions from campus to campus, campus to career, and job to job—even when the route between jobs goes back through a campus again.

A major weakness in the current education and training system is the lack of "vertical integration" between programs. Vertical integration refers to the connection from one program to the next in a hierarchy of opportunities to increase skills and abilities. A good example is Tech Prep. In Tech Prep, each high school program of study is

"It is essential that employers identify the skills needed in the workplace in order that employment and training assistance programs are relevant and useful."

U.S. Representative William Goodling, Pennsylvania addressing the House of Representatives, September 19, 1995.

explicitly linked to a community or technical college program so that the skills and abilities learned in high school are recognized by the college; the college program continues from this starting point.

With the exception of Tech Prep, education and training do not normally flow in this manner. For instance, Job Training Partnership Act (JTPA) and welfare-to-work programs are not generally designed to prepare the way for continued, nonduplicative training at a community or technical college. In addition, JTPA and welfare-to-work are usually short-term programs that are insufficient to prepare an individual for a family-wage job.

As suggested by Norton Grubb of the National Center for Research on Vocational Education in his forthcoming work, "Working in the Middle: Community Colleges and the Enhancement of the Sub-Baccalaureate Labor Force":

> *A crucial element of a coherent "system" would require all programs to be linked, to create a series of sequential education and training-related activities that individuals can use to progress from relatively low levels of skill (and relatively unskilled and poorly-paid work) to higher levels of skill and (presumably) more demanding, better-paid, and more stable occupations . . . Individuals with no occupational skills and little experience could enter short-term job training programs, of the kind now provided by JTPA and welfare-to-work programs, that would provide 15 to 30 weeks of instruction preparing them for the most modestly-skilled entry-level jobs. The individuals could then either leave for employment, helped by appropriate placement services; or they could enter a subsequent job training program, presumably a certificate program leading to more skilled jobs. The individuals needing to support themselves immediately would go into employment, but they would be able to reenter the system when the conditions of their lives permit, and continue up the ladder of opportunities.*

This vertical linkage would continue on to connect associate and baccalaureate degree programs. Each program would receive individuals from some programs and feed completers into others.

In order for vertical integration to work, each program should end in a credential of competencies that would be accepted by the next program in the sequence. Education and training providers should establish articulation agreements and inform students of the sequential paths available to them. ***Operating agencies in the workforce development system should ensure that all programs end in a competency-based credential fully accepted by the next level of learning, and that students are fully informed of the articulated ladder of certifications.***

WTECB, in coordination with state and local partners, will identify the core workplace competencies needed for entry-level workers and facilitate development of a credential to be issued upon attaining those competencies. These competencies should derive from the nationally recognized SCANS skills as

validated by the work of the employers, unions, and other partners who began skill standards development in Washington. *JTPA Title II should prepare participants to receive the credential.*

It should be noted that vertical integration will be particularly important for the welfare-to-work client, who must have incentives and assistance to move up the rungs of a vertical system in order to prepare for and reach economic independence. With time limits on public assistance, it is crucial that low-income individuals move smoothy through the system. Leaving and reentering the system haphazardly will increase the likelihood that they find themselves both ineligible for income support and inadequately equipped for the labor market.

Giving Customers the Keys: Accountability for Continuous Improvement

To really put customers in the driver's seat of our training and education system, the system's partners—employers, workers, students, and trainees—must have the information they need to use and to evaluate the training and education system. The key to the system is accountability to the public for results.

Setting Goals

Performance Management for Continuous Improvement (PMCI) identifies the workforce development goals for the state education and training system. These measurable goals provide guideposts for improving the condition of the state's residents. The goals focus on meeting customer needs. For each goal there is a series of indicators that paint the picture of how well the state is doing.

The key to the system is accountability to the public for results.

There are goals at three levels: for the system as a whole; for four population clusters; and for individual statewide programs. The four population clusters are: youth who are in school; youth who are out of school; adult workers (including able adults who are unemployed); and adults with barriers to employment. The goals are stated in terms of continuous improvement, recognizing that the system and its programs should always improve.

Over the next two years, the workforce development system agencies will expand the number of statewide programs that have goals and indicators. As regional workforce alliances are established** (page 93), **they could identify goals and indicators for their geographic areas that are consistent with the PMCI framework.

As data measuring progress in meeting the goals are collected, WTECB and the other workforce training and education agencies will revisit the goals and indicators so that we have the best evidence to help us make judgments about whether progress is being made. WTECB and the other agencies will also use these data to establish "floor" and "target" standards for selected indicators. The "targets" will be standards to strive for, while "floor" standards will be a level below which a program should not fall.

Measuring Performance Against PMCI Goals

In order to observe our progress toward the goals and to inform continuous improvement efforts, workforce development agencies will collaborate to evaluate results at four levels:

1. *System evaluations of the workforce training system as a whole.*

2. *Evaluations of the four program clusters.*

3. *Agency program evaluations conducted by state agencies.*

4. *Local program evaluations conducted at institutions such as common schools, colleges, and Private Industry Councils.*

In addition, as regional workforce alliances are established, they could measure progress within their geographic areas.

Results will be assessed separately for target populations in order to determine progress in serving an increasingly diverse population.

In order to measure results consistently, WTECB, in cooperation with the other workforce training and education agencies, will continue to develop standards for data collection and maintenance. These standards address such issues as common data elements, data match protocols, common survey questions, interpretation of existing data, and improvements in data handling. As the standards are developed, WTECB, in cooperation with the other agencies, will develop work plans and begin implementation. ***As information systems are modified and created, especially information systems for the One-Stop Career Center system, these systems will institute the new data standards.***

A focus of data improvements should be the K–12 system. Currently, there is no statewide information available on high school students after graduation. Central unit records are not maintained on K–12 students. Student records are not kept in a standard manner across school districts. There are differences in how districts define data elements and in what type of data they maintain.

These conditions do not lend themselves to an efficient evaluation of the results of K–12 education as measured by student satisfaction, postprogram education, or labor market outcomes. The Office of the Superintendent of Public Instruction, WTECB, and other agencies have been funding a pilot project to collect information on student postprogram results. ***OSPI should expand the scope of this project and develop the ongoing capacity to evaluate student results as indicated by postprogram experiences. This capacity will require fundamental improvements in the quality of K–12 data.***

Making Continuous Improvement a Key Strategy

Measuring results must be linked to efforts of continuous improvement at all levels of the workforce training and education system. Continuous improvement is the process of evaluating performance, using the findings to develop a plan to improve results,

implementing the plan, and evaluating the results in a continuous cycle of evaluating, planning, doing, and evaluating. ***Regional workforce alliances could establish customer review teams to review whether training and education providers are using a formal continuous improvement process.***

WTECB is currently leading an interagency effort to develop an implementation plan for continuous improvement. This plan will provide a roadmap on how to ensure continuous improvement works inside the agencies and institutions. Workforce training and education agencies and institutions will need to foster an environment attuned to internal and external accountability for the purpose of improvement. Only when it is acceptable to reveal weaknesses will workforce training and education have a climate that supports fact-based decision-making. ***This interagency effort will identify how state agencies can use technical assistance and incentives to foster cultural change and disseminate information on best practices.***

Workforce training and education agencies will identify funds to support continuous improvement and to implement plans that have been developed through their continuous improvement process. Agencies will seek additional funds as necessary and available to further their work. If the Innovation Fund proposed by the Governor's Task Force on Higher Education is created, community and technical colleges should use the fund to support continuous improvement.

Agencies' discretionary budget decisions will be guided by efforts to improve results. Agencies will direct discretionary funds toward implementing improvement plans identified through continuous improvement efforts. When reviewing agency budget requests for recommendations to the Office of Financial Management and the Legislature, WTECB will consider the extent to which agency requests are informed by continuous improvement efforts.

Traveling the Road Together: Partnerships Among Business, Labor, Community Organizations, Education, and Government

To get to our destination, we need stronger and deeper relationships among business, labor, education, community organizations, and the many federal, state, and local government agencies involved in economic development, job training, and adult education.

Building Capacity for Productive Partnerships

In order for business and labor to be full partners with training and education providers, there must be greater capacity on the part of both business and labor to participate effectively in designing programs, ensuring that programs meet labor market needs and providing meaningful work-based learning opportunities.

Statewide associations of labor and business, WTECB, and the workforce training and education agencies will collaborate in building the capacity of the private sector to participate in training and education policy and program development and implementation. WTECB will work with

"The fact is our economy is changing in profound and permanent ways. We can't protect ourselves from these changes. But we can prepare for them."

U.S. Representative Richard Gephardt, Workforce Economics, June 1996

such organizations such as the Washington State Labor Council, the Association of Washington Business, the Joint Council of Teamsters, the Washington Roundtable, and the Office of Minority and Women's Business Enterprises to conduct surveys and focus groups, recruit private sector representatives, and provide staffing and training for these volunteers. Industry-based consortia will be very valuable in these efforts.

In addition, ***WTECB will support the work of business and labor representatives as they offer training in the skills needed to be effective members of advisory or policy boards and committees.***

For their part, the workforce training and education agencies and institutions must welcome the authentic participation of private sector representatives in all stages of policy and program development and implementation. In addition, WTECB and its partners will invest in developing the planning, project management, change management, and teamwork skills of state and local level partners, so that interagency collaboration is facilitated.

Ensuring Diversity

In Executive Order 93-07, Governor Lowry directed "all state agencies and institutions of higher education to initiate actions to integrate the principles of diversity into all facets of workplace, community, and in the delivery of services to the people of Washington."

Workforce training programs must be accessible to all people. Just as this document infuses equity and diversity into all of its parts, so must the workforce training system infuse equity and diversity into all of its programs.

Equity and accessibility don't happen by accident—and they don't happen with mere good intentions. They happen only with adequate resources and careful planning from program start to program finish. Placing the diversity of our students at the core of planning helps us keep the purpose of workforce training firmly in mind. Such planning must include goals and strategies to:

- Improve the participation, retention, and completion rates of all students;
- Recruit, hire, and promote people of color, women, and people with disabilities to better reflect the population;
- Include training in diversity and gender equity in professional development activities of all staff;
- Find and assist populations that have been traditionally underserved;
- Meet the specific employment and training needs of the welfare population;
- Find and adopt best practices;
- Recognize and meet the special learning needs of people with disabilities, including learning disabilities;

- Provide bilingual instruction to students who are not ready to learn in English;
- Monitor programs for accountability and continuous improvement.

Currently, the Office of Superintendent of Public Instruction has responsibility to ensure that all students are included in the implementation of the state's school-to-work transition system. The State Board for Community and Technical Colleges receives funds to improve retention and completion of underserved student populations. All the partners engaged in planning the state's One-Stop Career Center system are committed to building a system accountable for service to all customers.

Recruitment and Retention

Even with our acknowledgment that learning happens in many places, the heart of the workforce training and education system will always be a corps of highly qualified instructors who stay current in their field and who care deeply about the success of *all* their students.

Workforce training and education programs must be user-friendly for all people. The programs' staffing and administration should include women, people of color, and people with disabilities. Recruiting and retaining such instructors will require the creation of systems that reward excellence —that is, systems that are based on performance outcomes and competencies.

Professional Development

Educational preparation and in-service training must provide teachers with the skills and the curriculum needed to integrate vocational and academic learning. Achievement of this target will include the use of mentoring and modeling activities, telecommunications for teacher training, and the creation of new partnerships among all sectors of the education community, business, and labor.

It will also require changes in the way teachers are trained. This means changes in the certification requirements for faculty and in professional development activities. ***As we move toward a competency-based education system for students, the organizations responsible for professional development must create a system of teacher preparation and professional development that is competency-based, integrates vocational and academic education, and enables teachers to help all students succeed in reaching higher standards.***

Current and future instructors should have both educational training and industry experience, so that they can integrate academic and vocational learning goals. Such a goal need not exclude the utilization of instructors from the private sector who do not hold traditional education certifications, but should focus on the ability of every instructor to impart skills with both academic and vocational content.

Further, professional development must be focused on ensuring equity in all learning opportunities.

Sharing Best Practices for Effective Learning

To promote continuous improvement, the state must provide local programs with information on what works and what doesn't. There is a wealth of research data on how people learn, how successful programs work, and what pitfalls to avoid. Telecommunication networks, regional seminars, and/or a central resource center are among the ideas for disseminating this vital information. Sharing best practices and helping support their development should be a central focus of the Center for Improvement of Student Learning.

Creating Customer-Friendly Training and Education Services

A crucial means of boosting public-private partnerships and ensuring service to a diverse population is to increase the accessibility of the system. In the past three years, Congress and the Administration have pushed for legislation to streamline the federal workforce development system, so that training and education programs become less fragmented and more customer focused.

That streamlining has not yet happened, but ***Washington State should continue to pursue the goals of block grant legislation to:***

- Plan workforce development programs in a comprehensive way;
- Implement an integrated one-stop employment and training system;
- Establish system accountability guided by Washington State's own Program Management for Continuous Improvement (PMCI); and
- Develop and use industry-recognized skill standards.

As Congress and the Administration approach potential reform in 1997, ***WTECB supports federal initiatives that advance state goals, engender public-private partnerships, reduce administrative barriers among programs, and support systemic accountability and continuous improvement.***

In 1996, Congress enacted legislation that grants new authority to the Secretary of the U.S. Department of Labor to approve state requests to waive certain federal requirements in the Wagner-Peyser Act and in the Job Training Partnership Act that block states from improving their workforce development systems. WTECB supports state application for these waivers so long as the waivers reinforce the following objectives:

- Involvement of customers in policy setting;
- Development of public-private partnerships;
- Systemwide accountability;
- Customer-focused services that are easily accessible and understandable;

- Ability to meet the needs of all learners, including those underserved in the past because of racial, ethnic, or cultural differences; gender; disability; age; or learning style;

- Use of industry-driven skill standards as a common measure of skill achievement and as a basis for credentials in public and private workforce training and education programs.

Everyone involved in the workforce training and education system must work to integrate services so that customers can find the education, training, support services, and job placement help they need when they need it. ***Washington will work to create One-Stop Career Centers to improve access to high quality job-related services.***

As a partner in planning the state's One-Stop Career Center system, WTECB has emphasized several essential points. Among these are recognizing the importance of:

- *Identifying employers and unions as the voice of the customer throughout the system;*

- *Incorporating into the system the services currently provided by the private sector;*

- *Ensuring consistency between regional and state-level planning and policy-making; and*

- *Ensuring firm links to other workforce training and education initiatives, such as school-to-work transition and other elements of the system, such as K–12 education.*

In addition, WTECB will continue to pursue its responsibility to advise the Governor and the Legislature on potential consolidations and alignments of existing programs. As a follow-up to the study completed for the Legislature in 1995 and in preparation for future requests, ***WTECB will conduct a study of the current funding of workforce training and education programs by January 1998.*** Increasing the level of detail will increase the information available for local partners as they do their regional planning.

Coordinating at the Regional Level

Washington is engaged in many initiatives to increase public-private partnerships for workforce development. These initiatives are designed to increase customer choices, improve services, and reduce the fragmenting effects of categorical programs. These initiatives require regional alliances to increase business and labor involvement and facilitate program alignment—especially since most of these programs, whether flowing from federal or state funds, have administrative structures that often do *not* align.

Without federal block grant legislation, there is little relief in sight for federal categorical program funding, but the community-based planning started by the possibility of block granting should continue. The essential outcome of those discussions was that state-level responsibility in the workforce development system was setting goals, defining policy, and

"We are like all other communities, like some other communities, and like no other community—we are all these simultaneously."

Mary Doherty Kowalsky, Yakima Valley Community College, commenting on the "High Skills, High Wages" draft, September 1996

determining methods of accountability—essentially determining "what" the state seeks to do. Determining "how" to meet those goals involves choices that are best made at the local level. In order to make the best choices, close cooperation and coordination between service providers and the customers is necessary.

To make the state's goals clear—define the "whats"—WTECB produces the comprehensive plan. Currently, however, there is no vehicle for regional workforce development planning and accountability activities. Communities in the state are served by a host of programs, most state and federally funded. Many also have local and regional offices of state agencies, but these offices usually plan for and evaluate only the programs they operate or fund. Although there are significant local efforts to work together, local offices are not designed to be sources of mutual planning for other funding sources. As a result, few communities know how—or how well—resources are working together to meet the labor market needs of their area.

Programs, in fact, are often targeted to closely defined areas, smaller than the geographic and economic regions that encompass them. Many programs need to operate in small units to assure focused attention to their customers, but they all increasingly need relationships to economic, business, and labor units larger than a local community can furnish. Employers who support school-to-work transition, for example, may do so from corporate offices that have local connections to several communities. And apprenticeship programs and their training centers can link with more than one school district if the connection can be facilitated regionally. Both are best served by a workforce development system than can simplify their connections to local partnerships through regional organizations.

All workforce development activities, in fact, need to simplify their contacts with employers and unions to assure that the businesses and unions are not overwhelmed by the number of programs that seek placements, mentors, policy advisors, and so forth. Private-public partnerships must acknowledge the needs of all the partners and reach accommodation that assures rather than defeats effective partnership. Workforce development regionalization should have at its heart the facilitation of authentic regional partnerships of business, labor, and the public sector.

This coordination effort has never been as urgent as it is now. School-to-work transition seeks workplace opportunities for all youth as they start toward high-skilled occupations. Welfare reform needs entry-level and training-level work for its time-limited clients. If we do not improve the organization of our system, we will alienate the employers and unions we need as partners in these initiatives. We must create a system that can foster partnership in the training of youth and adults—of all abilities—and be truly comprehensive.

To accomplish this goal—a substate structure useful to the entire workforce development system—Washington should enhance what currently exists: state-level

coordination of workforce training and education and a variety of local-level efforts to develop partnerships among customers and agents of the service delivery system. An additional element is needed: regional workforce development alliances.

Adding these alliances would result in a workforce development system that includes:

A. State Level

The Workforce Training and Education Coordinating Board, which provides state-level coordination of policy and accountability, and produces the comprehensive state plan for the system; and state agencies that are responsible for the governance and administration of workforce development programs, ensuring that their statutory missions are upheld, the needs of their constituents met, and that their programs advance the state workforce training goals.

B. Regional Level

Regional workforce development alliances, with equal tripartite voting membership of business, labor, and the public sector, would provide a vehicle for coordination, planning, and customer involvement. Ongoing discussion among the customers and delivery systems will lead to specific definition of the roles, responsibilities, and other community partners that can assist regional alliances. Some of the potential responsibilities could include:

- Regional-level organization of policy and accountability consistent with state policy, in smaller units than the whole state but in larger, more cost-effective units than local partnerships, which might be numerous.
- Regional needs assessments in order to set regional priorities within the state's policy framework and goals. (State-level decisions must reflect the whole economy of the state which may not be reflected in some of its parts at any given time.)
- Measuring progress on state goals and the regional priorities within those goals.
- Regional review of and recommendations regarding local operating plans for state and federal funds.
- Connecting points for business, labor, education, government, and other partners common to several local partners (e.g., community colleges and private career schools serving multiple school districts).

C. Local Service Delivery Partnerships

Local service delivery partnerships, such as School-to-Work Transition and One-Stop partnerships, which bring together the customers and service providers at the local level to:

- Operate coordinated services, such as those required for school-to-work transition and One-Stop Career Center development;

- Respond to immediate customer needs, especially as major economic changes occur; and

- Implement continuous improvement processes and gather and report performance data to the regional alliances and state agencies.

Coordinating Workforce Training and Economic Development

One of the most frequently asked questions about training is: "Will there be a good job at the end of training?" The question highlights the basic connection between workforce training and economic development. The connection is not automatic. Workforce training and economic development policymakers and practitioners must act in concert in order to increase the likelihood that training does result in good paying jobs.

Most broadly, workforce training and education agencies cannot coordinate their services with the economic policy of the state if there is no economic development policy. ***One of the first actions of the next Governor should be to formulate an economic development policy for the state, in cooperation with the Legislature, business, labor, economic development providers, and other stakeholders.*** This policy should be informed by the high skill, high wage themes of the state's comprehensive workforce training and education plan. The economic development policy should incorporate strategies for coordinating economic development and workforce training, including the strategies listed here and as further developed by the state's economic development and workforce training and education systems.

- Customized training for particular employers is one of the surest ways to connect training to good paying jobs. In Washington, however, the state's customized training program, the Job Skills Program, is funded at only one-tenth of the national average on a per-capita basis. ***The Legislature should increase funding for the Job Skills Program.*** The program should continue to allocate resources strategically to support economic development strategies such as the Department of Community, Trade and Economic Development's (CTED) key sectors program, promote high performance work practices, and support training and education for jobs that pay a good wage.

- CTED established the key sectors program to identify and assist certain industries that are key to the economic future of the state. In some of these sectors, CTED has helped to create and nourish industry associations. By targeting training to the key sectors, workforce training programs can augment the sectors' impact on economic development. This targeting can be more effective when brokered through industry associations that are well situated to represent and communicate

with their members. ***WTECB and CTED should continue to lead the Customized Training Initiative that targets training resources to industry associations in key sectors of the economy.***

- Sometimes when considering locating or expanding here, employers want to know what customized training is available from the state and how to access the programs. We should respond quickly and completely to employers who need information about customized training. ***WTECB, CTED, and the other agencies will continue to work together to be responsive to employer needs.***

- Firms that employ high performance work practices are more likely to have rates of productivity that enable firms to pay high wages. High performance work organizations fully engage the skills and decision-making capacity of workers and create demand for highly skilled workers. The state currently assists high performance work practices in a variety of ways; for example, by facilitating ISO-9000 training for firms. There is, however, no overall policy guiding these efforts and little coordination of assistance. ***As part of its economic development policy, the state should explicitly establish the goal of promoting and recognizing high performance work practices.***

- One strategy for facilitating high performance work practices is a system of industrial extension services. Analogous to agricultural extension services in farming and ranching, industrial extension systems assist firms in adopting new industry techniques, including techniques in human resource management. Washington is one of the few states that does not currently have an industrial extension system in place. The state has just been awarded federal matching funds for creating an extension system. ***Assisting firms in adopting high performance work practices will be a critical component of the industrial extension system.***

- *Workforce Training Results* found that one of the weaker areas of the state workforce training and education system is the ability of public providers to meet employer training needs for their current workers. This discovery warrants further study. ***The State Board for Community and Technical Colleges and WTECB should conduct a study of employer-based training for current workers in order to determine how providers can better meet employer and worker needs. After the study, education and training providers should act on the findings.***

- ***The state should also improve other services for employers that are related to training. One-Stop Career Centers and regional workforce alliances will be critical in this effort.*** The One-Stop system should provide employers with effective employee recruitment, screening, and assessment for job vacancies. The system should offer employers technical assistance on employment rules and regulations and

"Profit in my business is dependent on my workforce. If you ask me the one biggest obstacle to my business growth, it is the skills of our people. As the company grows, we need our people to upgrade their skills. If our people do not keep up, our company does not grow."

Kay Hirai, owner of Studio 904 Salons, and Member of the Governor's Small Business Improvement Council, speaking to the Workforce Training and Education Coordinating Board in Yakima, June 1996.

a wealth of information on the labor market. The system should also offer employers information about training and education opportunities in their area, including customized training and consumer reports on training provider results. The regional alliances could develop an outreach system to employers that takes advantage of natural contact points for businesses such as trade or industry associations, economic development councils, and ports. The alliances could also assess regional employment and workforce education and training needs.

- Workforce education and training is not the job of the public sector alone. The private sector should invest more in the formal training of workers. *Workforce Training Results* found that 40 percent of Washington firms do not provide classroom or workshop training to their own employees. A quarter of firms indicate they do not have the resources to train their employees. ***Tax incentives are one set of tools to spur training investments. The Governor and Legislature should support tax incentives for employers who provide training and education to their employees.***

Matching Labor Market Demand

Workforce training and education is not effective if it does not provide the type of skills that are in demand in the labor market. ***Training and education institutions must prepare workers for the type of jobs that employers have to offer and with the skills employers expect.*** In order to achieve this match, there must be accurate and readily accessible labor market information. This information allows individuals to know the employment opportunities in their communities and across the state and understand the type of training and education needed in those jobs. Information about the labor market also helps institutions adjust to the community's need for training and education: they can develop, eliminate, and modify courses based on their understanding of the labor market around them.

The interagency State Occupational Information Coordinating Committee (SOICC) has adopted a three-year plan to improve the quality and accessibility of labor market information. Staff from SOICC, the Employment Security Department, and other agencies on SOICC should continue to implement the plan. The Employment Security Department should also continue to improve labor market information as outlined in the Department's plan for expenditures from the Employment and Training Trust Fund.

Consumer reports on workforce training and education will be a valuable new tool for labor market information. These reports will inform individuals of the typical labor market results achieved by people such as themselves when they pursue different training strategies. For example, the reports could indicate the likely employment and earnings outcomes if an individual without a high school degree pursued adult basic skills instruction and completed vocational training in a community college nursing program. When there is sufficient data for reliable information, results will be provided

for individual institutions. *Over the next two years, WTECB and the other workforce training and education agencies will complete the design of consumer reports, develop the reporting system, and after pilot tests and appropriate revisions, implement broadly the consumer report system.*

The Workforce Training and Education Coordinating Board will continue to assess periodically the workforce training and education needs of employers and workers. The assessments will include surveys of employers and workers. WTECB will analyze the gaps between the training needs of the economy and the training supplied by the state's training and education system, and publish the results widely.

Regional workforce alliances could research and publish more detailed assessments of the education and training needs of employers and workers in their area. Educators and training providers should use these state, local, and industry assessments in order to improve how well their programs match labor market demand.

Educators and training providers should continue to improve their flexibility to respond to changes in employment opportunities. Private schools and training providers must react to market changes in order to stay in business. One method to support flexibility in the public sector is the community and technical colleges' workforce development grant program that, in part, enables colleges to respond to industry needs for new programs. All parts of the workforce training and education system should explore how to increase their ability to respond quickly to changes in the economy, ending programs that no longer match demand for higher wage jobs and initiating programs that do.

Milestones on the Journey of Lifelong Learning

Success at an Early Age: Transforming Our Public Schools

The aims of public education must include preparation for successful citizenship, the promotion of the life of the mind, and the creation of well-rounded human beings, but greater attention is also needed to the role our schools play in preparing young people for economic self-sufficiency and a lifetime of continuous learning. In addition to implementing the principles of competency-based learning and vertical integration described above, our K–12 education system must reflect a new role in workforce preparation.

That role must include acknowledging the economic impact of failing to serve our children. Youth who do not learn in school or do not complete high school are more likely to be economically disadvantaged as adults. Thirty-eight percent of the recipients of AFDC in Washington have previously undiagnosed learning disabilities; 41 percent have no high school diploma or GED. *Washington's education system and its partners must work to reduce our state's dropout rate and improve the assessment and accommodation of learning disabilities.*

Teaching the New "Basic Skills"

Washington's historic school reform legislation has set our public schools on a new course: the development of a results-oriented, locally designed system of education that is guided by clear statewide goals and held accountable for ensuring that all students master basic skills and knowledge. Successful school reform will greatly reduce the need for remedial instruction in our postsecondary education system, saving millions of dollars that can be deployed to meet other education goals. ***Workforce training and education agencies and their private sector partners must actively support successful implementation of K–12 school reform.***

All government agencies must help ensure that students get the social and health services they need in order to learn. This includes supporting programs such as Even Start, which helps parents improve the skills that enable them to become more involved in their children's education.

Education Reform's Effect on Vocational Funding

Currently, much of the cost of educating students in new ways is being borne by vocational education. In many schools, vocational budgets bear the costs of increasing career guidance and expanding work-based learning opportunities for students. The cost of supporting technical training through appropriate equipment and instructors can be shared by creating skills centers, but those centers are not supported by levy funds. Summer school funding for the centers has been an issue each biennium. ***The Legislature should continue to assess the effect on vocational education when those funds are used to support the implementation of school reform, including the necessary elements of expanded career guidance, work-based learning, and employer-teacher connections.***

Certificate of Mastery

A pivotal part of education reform is expecting all students to demonstrate proficiency in core academic areas at or about age 16. The Certificate of Mastery they earn will verify to educators and employers, among others, that these students have the necessary educational foundation to be conscientious citizens and capable workers. For this to be true, ***business and labor representatives must help develop and validate the new learning standards.*** They must be involved in the development of the tools that will assess student achievement of the basic core curriculum as indicated by the Certificate of Mastery.

In addition, to succeed in high performance work organizations, today's students must master more than the traditional basic skills of reading, writing, and computing. They must also master the new basic skills—teamwork, critical thinking, making decisions, communication, adapting to change, and understanding whole systems. For them to do so, ***the Commission on Student Learning must ensure that these work-related foundation skills are part of the essential learning standards and their assessments. The Commission must define***

clearly the core competencies associated with Goal 4: "Understand the importance of work and how performance, effort, and decisions directly affect future career and education goals." These competencies must be defined distinctly so that they can be assessed. Certification of the competencies must be valid with employers, adult workers, and others who will give the certifications currency.

Post-Certificate of Mastery

In the school-to-work vision, all students who have earned the Certificate of Mastery will also have received career guidance, have been exposed to a wide range of work-based learning opportunities, and will be making choices that shape at least their last two years of high school. After attaining the Certificate of Mastery, students will be increasingly engaged in advanced academic and career-related experiences. These years —the end of high school and the transition to additional education, training or work— must be guided by a fully developed school-to-work transition (STW) system. ***Working together, the state's STWT partners and the State Board of Education must ensure that essential learning requirements are developed for the period between the completion of the Certificate of Mastery and high school graduation.***

The connection of academic and work-related competencies must not end at high school. K–16 educators must be convened to translate the standards into program and student competencies throughout the system. Industry representatives and educators must work collaboratively to develop instruments for assessing the mastery of essential skills throughout the occupational clusters to ensure their validity and currency.

Implementing School-to-Work Transition

Washington state's school-to-work transition implementation plan sets out the specific steps that each partner has pledged to make to ensure the system is "put in place" over the course of the temporary federal grant. ***Under the guidance of the Governor's Task Force on School-to-Work Transition, each of the key partners will fulfill their commitments to the development of the School-to-Work Transition system.*** Within that plan, specific partners have committed to accomplishing the tasks needed to establish the STWT system. Of particular importance for the next two years are:

- ***Continuing the improvements in schools that allow for connections to the world beyond the classroom.*** To accomplish this, educators must have opportunities to see the subjects they teach being used in the workplace and be encouraged to adapt their classroom activities to reflect that knowledge. Students must learn using a curriculum that merges academic and vocational lessons and focuses on developing the core competencies. Their studies must be organized around career pathways that allow them to make informed personal choices about what they study and how they prepare for the future they seek. And students must be assessed for the skills

and knowledge they have mastered, demonstrating the ability to apply them to problems.

- ***Increasing the number and quality of work-based learning opportunities for youth.*** Under the state's federally funded School-to-Work Transition plan, all Washington youth will have work-based learning opportunities, both before and after attaining the Certificate of Mastery. Early experiences will expand students' awareness of careers and the workplace. Once students have attained the Certificate of Mastery, they will need experience that fosters the development of entry-level occupational skills. Business and labor have already established the means for developing greater capacity in the private sector to participate in school-to-work development by creating the business-labor Alliance. That increased capacity must pay off not only for planning and evaluating local programs, but in the number of places where students can see adults at work, observe the skills they use, and learn about the challenges of their jobs, as well as see the satisfaction they derive from their work. Young people need jobs that connect firmly and clearly to their studies in school. And they need to be assessed for the skills they gain at the worksite to confirm that connection.

- ***Ensuring that the system is comprehensive and inclusive.*** Two main forces divide students. One is based on early and imperfect predictions of their furthest educational achievement: college track? vocational track? general track? The second, developed especially over the last three decades, reflects fragmentation similar to that of federal program development, separating students, and identifying them by special characteristics—race, ethnicity, culture, ability, and income. We must focus on building a system that includes all students and serves each of them equally well. While not forgetting that some students need special assistance to succeed—help with second languages, social and economic supports, tutoring, and so forth—we must ensure that such assistance is available to any and all students on the basis of need, not labels. And the assistance must be built into the system, not tagged onto it by special (and often temporary) programs.

Lifelong Opportunity: Training and Education for Adults

Doing a better job of preparing our youth will be a major advancement toward our goal of a world-class workforce. Reforming the system that educates them will mean lasting improvements. It is a long-term strategy, however, and many of the problems facing our employers are immediate. We must give as much care and attention to the education and training of adults as we do to youth if we are to support our current and future economy.

Increasing Supply to Meet Demand

The supply of vocational-technical training at community and technical colleges and

private career schools must increase. As analyzed in WTECB's *Workforce Training: Supply, Demand, and Gaps*, the state's two-year colleges and private career schools are not supplying the number of workers needed by employers. Eighty percent of employers who recently attempted to find job applicants with a vocational two-year degree or certificate have had difficulty finding qualified applicants. Based on Employment Security Department forecasts, over the next five years there will be an average of 28,000 net job openings per year for workers with two or three years of post-secondary training, but the community and technical colleges and private career schools graduate only about 21,000 vocational completers per year. While in-migration from other states and nations helps to reduce the gap, about half of the gap remains. The shortfall in meeting labor market demand at the postsecondary vocational level appears to be more severe than the gap at any other educational level.

In order to reduce the gap in the supply of workers with vocational degrees and certificates, the state must fund additional enrollments in vocational programs at the community and technical colleges. We also encourage private career schools to increase their enrollments, while recognizing that this is a private business decision. By the year 2005, participation rates in community and technical college vocational programs should increase by 20 percent from 1995 rates. Assuming that private career schools continue to expand the training they provide in relation to the growth in the population, this increase in public training should be sufficient to close the gap in matching labor market demand for new hires. By the year 2010 (the time frame used in the Higher Education Coordinating Board's Master Plan), WTECB's goal of increasing participation rates will require places for 9,432 state-supported vocational student FTEs *on top of* the increase required to match age-specific population growth. WTECB will reexamine this goal periodically in order to determine if changes in the economy or the education system warrant any revision.

Currently, the state has no mechanism to direct community and technical college appropriations to the vocational preparation of students as opposed to other purposes, such as baccalaureate transfer or basic education. Along with funding for the purpose of increasing the number of vocational completers goes the responsibility of developing a method to link that funding to the goal. ***The State Board for Community and Technical Colleges should explore options for managing funding so that funds can be directed to the vocational preparation of the workforce. SBCTC should adopt appropriate options and forward recommendations that require statutory action to the Governor and Legislature.***

Besides increasing supply, the colleges must continue to change the way they do business, focusing particularly on institutional and systemwide changes that can improve student success. In order to do this, community and technical colleges must learn who successfully completes programs, and why, and develop strategies to increase the number of completers per FTE expenditure.

There are several strategies that can be tried. Competency-based education can recognize student abilities learned in non-college settings. Distance learning technology can stretch existing capacity. Work-based learning can make non-campus facilities and equipment available. Student support services can improve student retention so more students complete their intended degree or certificate. Better counseling can bring more focus to students' efforts and make finding employment easier.

In addition, completion rates of people of color have traditionally been lower than those of whites. ***The community and technical colleges should continue their current work to develop goals and strategies for improving retention rates for people of color and those with disabilities. Similarly, they should develop goals for retention rates for women in training and education for occupations that have been disproportionately filled by males.***

Retraining Unemployed Workers

Approximately 60,000 Washington workers lose their jobs per year due to declining employment in their occupation or industry. While many of these workers are able to find new employment without retraining, or are not interested in retraining, perhaps one-third of dislocated workers would take advantage of retraining if it were readily available to them.

The state's major program to retrain dislocated and other unemployed workers is retraining at community and technical colleges funded by the Employment and Training Trust Fund (ETTF). ETTF is funded through a redirection of funds that would otherwise flow into the unemployment insurance trust fund. It remains a controversial funding source. The retraining program will expire in 1998 unless the Legislature and Governor enact a change in the law. As discussed in WTECB's *Workforce Training: Supply, Demand, and Gaps*, if the program expires without replacement, there will be a big gap in retraining opportunities for dislocated workers.

As of this writing, WTECB is formally evaluating the net impact of retraining funded by ETTF. ***If the college retraining is found to be an effective means of meeting the retraining and reemployment needs of dislocated workers and employers, then the business, labor, and education communities should work to reach an agreement on a strategy to continue the program.***

Providing Support Services

For workforce training and education to be effective, participants must receive the support services they need to complete training. Support services such as financial assistance, career and other counseling, child care, and job placement assistance must be easily accessible to all learners.

WTECB's *Workforce Training Results* found that some of the biggest gaps in support services are at the beginning and end of training. At the front end, many potential training participants are unaware of training and education opportunities or the financial assistance available. Many assume wrongly

that they cannot afford training or education because they lack information.

To initially address this gap, the Employment Service should help identify job seekers who could benefit from occupational training or basic skills instruction and inform them of available programs and assistance. As One-Stop Career Centers are created, they should become centers of information concerning training opportunities. Training programs should provide better counseling regarding the training and career paths that make sense for their participants. An important tool for such counseling will be consumer reports on training strategies. ***Further, equity issues must be an integral part of designing and planning effective counseling services so that potential training participants are aware of all their options.***

By the end of training, many participants would like more help in finding a job. ***Workforce training and education programs must work to improve their job placement assistance. Again, as it is developed, the One-Stop Career Center system will address this need.***

While financial assistance is often available to cover the costs of training, lack of money for the everyday costs of living is a frequent barrier. Many unemployed workers in retraining rely on unemployment insurance benefits. Regular unemployment benefits, however, last for a maximum of 30 weeks. More than half of the dislocated workers who leave their ETTF-funded retraining before completion report that the ending of their unemployment payments contributed to their decision to leave.

There are some exceptions to this constraint. The Legislature appropriated $7.6 million in financial assistance for workers in the ETTF program whose unemployment benefits end or are reduced before their college program is completed. Separate from that assistance, workers whose unemployment was associated with downturns in the timber or fishing industries are eligible for up to 104 weeks of unemployment benefits while they are in retraining and an additional five weeks to search for employment.

Such industry-based exceptions probably do not make sense to unemployed workers who have the misfortune of having worked for a different industry or in a county not dependent on timber. ***The Governor and Legislature should consider a broader extension of unemployment insurance benefits while workers are in retraining.*** This strategy can both help assist individuals to complete retraining and divert them from the public assistance rolls.

Making Welfare Reform Work

The recently enacted federal changes regarding public assistance will require substantial changes in the state's workforce training system. The training system will have to respond to the needs of many individuals who have a limited time to obtain the skills required to become productive workers. Over the coming months, WTECB and the workforce training agencies will help analyze the implications of federal welfare reform for the state training system in order to assist the Governor, the Legislature, and the Department of Social and

Health Services as they deliberate the federal changes and the state's response.

While there has not been sufficient time to determine many of the implications of the federal law, some of the necessary changes in the state training system are evident. As stated earlier, ***we must build a training system that is vertically integrated so that individuals can continue along a progression of skill enhancements. We must develop training programs that integrate basic skills, vocational training, and work so that individuals can learn the skills to be self-sufficient and "earn as they learn." We must integrate public assistance recipients who are capable of work but who lack marketable skills into the state's training system. As the state and communities develop One-Stop Career Centers under the principle of universal access, the Centers must be an effective gateway to training and other employment-related services for public assistance recipients. And we must continue to include the state's welfare-to-work program in the PMCI performance management system so that we set goals and measure results for welfare to work consistently with the workforce development system as a whole.***

Making up for Lost Time: Improving Basic Skills and Literacy Among Adult Workers

In addition to adults who need retraining are the adults in Washington with special education and training needs rooted in their lack of literacy and basic skills. Many of them are seeking employment, while others are employed but at high risk of dislocation in our changing economy.

As part of the research for the *1996 Workforce Training Results*, WTECB surveyed 1,900 employers in Washington. The survey indicated that a significant portion of Washington employers experience difficulty finding new employees with adequate reading, writing, communication, and math skills. This result reinforces the finding of the State Adult Literacy Survey (SALS) that 570,000 adult workers in Washington function in the lowest two categories of skill and knowledge.

Unless they increase their skills, these 570,000 working adults may not be able to meet the higher skill standards necessary to keep their jobs, qualify for promotion, or succeed at retraining. Their employers also risk losing their ability to compete and to raise productivity levels.

Improve Basic Skills in the Workplace

Businesses must be encouraged to increase their investments in upgrading the basic skills of their employees. Business managers are often unaware of the basic skills requirements that are intrinsic to changes made within jobs. The *Workforce Training Results* survey revealed that only about 5 percent of Washington State employers provide classroom basic skills instruction to their employees.

The State Adult Literacy Survey data indicate that the overwhelming majority of adults who demonstrate low levels of literacy do not perceive themselves to be at risk. This denial—plus lack of confidence, slow progress, resistance to conventional

classroom learning approaches, attendance conflicts, and possible undiagnosed learning disabilities—make providing basic skills training highly challenging.

Workplace literacy is a practical answer for addressing low basic skills of individuals currently working. Workplace literacy actively involves workplace partners (workers, employers, labor organizations, and educators) and directly links instruction to workplace demands. The most successful of these are programs designed to supplement technical training and facilitate the maximum transfer of knowledge from the learning situation to the job. (Workplace literacy classes are set up in convenient locations intended to help workers become comfortable with the learning process.) This is a form of competency-based literacy training that many employers are interested in because of its functional and contextual connection to work and its ultimate influence on job quality and performance.

Unlike several other states, there are no dedicated state funds in Washington set aside as seed money to promote and develop workplace literacy partnerships. Moreover, funding from a small federal workplace literacy grant (that currently reaches only 11 businesses in Washington) is uncertain after August 1997. Given the size of the need, federal grants alone can not bring services to the scale needed, nor are they sufficient to build an infrastructure to promote and expand workplace literacy partnerships.

The Governor and the Legislature should consider establishing a state Workplace Literacy Program modeled after successful initiatives in Washington and other states or the Washington State Job Skills Program. To have an impact and to test various strategies, the program should be large enough to annually fund numerous workplace literacy pilots that employ the field's best practices.

In addition, the Governor and the Legislature should consider offering tax incentives geared specifically to employers who provide workplace literacy training opportunities to their employees.

To launch a successful workplace literacy initiative, attention to specialized training for workplace literacy instructors and company human resource staff is needed. The Legislature should establish a Workplace Literacy Training Institute to offer formal training that teaches best practices in developing and implementing workplace literacy programs that involve workplace partners (workers, employers, labor organizations, and educators).

Assisting Unemployed or Underemployed Adults with Limited Skills

There will be a continuing need for basic skill programs for adult learners who are new immigrants, welfare recipients, unemployed and underemployed part-time workers. Literacy and English-language skills are crucial to ensure they can resist or break cycles of multi-generational poverty and illiteracy. The more quickly an adult

masters English, the more quickly he or she becomes able to market skills brought from another country. Too long a period learning the language allows those skills to deteriorate. In addition, literacy in the home is crucial to the success of all children in school.

Yet the family and economic demands faced by these individuals often make it difficult for them to stay enrolled in basic skills classes long enough to enjoy educational gains. Many get discouraged by their slow progress. ***Revisions in program design are needed to improve student retention and student outcomes.*** Publicly-funded instructors must recognize that teaching reading, writing, and math in isolation of their application is not effective. ***They must present their materials in an applied, life skills and work-related context.*** Family literacy and employability must be the priority focus, as recommended by the Adult Education Advisory Council.

A significant percentage of adults enrolled in publicly-funded adult basic skills classes are welfare recipients. For them, there is little apparent connection between participation in classes and progress toward self-sufficiency unless the basic skills instruction is ***integrated*** with job training. Experience shows, however, that adults can experience improved results (increased motivation and gains in employment and future earnings) when basic skills classes are linked to vocational training, work experience, and other work-based learning opportunities.

Individuals enrolled in adult basic skills classes need to be co-enrolled in other workforce development programs so that supportive services are coordinated and appropriate vocational education and work-based learning opportunities are scheduled. To accomplish this, managers and instructors of adult basic skills programs must play an active part in planning One-Stop Career Center services in their community.

The Adult Education Advisory Council and the Office of Adult Literacy at the State Board for Community and Technical Colleges should:

1. ***Complete their work to implement performance measures consistent with the state's Performance Management for Continuous Improvement (PMCI) system.***

2. ***Develop statewide guidelines and policies designed to increase significantly the number of training sites that integrate basic skills instruction with vocational training.***

3. ***Direct a study to identify effective strategies and techniques that will improve student retention in adult basic skills classes.***

4. ***Ensure that adult basic skills and English-as-a-second-language providers are included as active affiliated partners in their community's One-Stop Career Center system.***

5. ***Prepare sufficient numbers of instructors qualified to fill the need for adult basic skills and literacy training.*** This

should include monitoring the need for state funds to prepare instructors as federal support declines, and may include involving the colleges of education as they prepare new teachers.

6. ***Investigate the reported gap between completion of basic skills training and qualification to enter postsecondary vocational training programs.*** If current federal or state programs restrict adult basic skills training so that completers of the programs are still unprepared for the next step of workforce training, then the AEAC and OAL should make recommendations on how the state can close that gap.

Statewide Assessment System for Adult Basic Skills

Currently, assessment techniques vary widely and literacy assessment progress results do not follow students to their next training or education institution. ***Over the next two years, the Office of Adult Literacy needs to finish its work to reach agreement among publicly-funded literacy providers on a statewide system that uses common intake and assessment information, relates results to competency-based curriculum, shares program and client/learner data, and employs follow-up progress reviews.***

Coordination and Consistency

Basic skills programs must become an integral part of an education system that is geared toward lifelong learning. ***There must be consistency, for instance, between the Essential Academic Learning Requirements being developed for public schools by the Commission on Student Learning and the Core Competencies for Adult Basic Education developed for adults.***

Measuring Changes in Basic Skills

To assess our progress, there should be a collaborative effort periodically by the Adult Education Advisory Council, State Board for Community and Technical Colleges, Employment Security, WTECB, and others to measure the functional literacy of Washington adults.

Teaching What We Know: in the Classroom, the Boardroom and the Front Lines of the Workplace

Developing a Culture of Learning and Teaching

In the past, the words "education" and "learning" immediately conjured up a picture of a classroom, usually filled with children or young people and with a specially trained teacher or professor facing neat rows of desks and delivering a lecture.

In the future, the words "education" and "learning" will conjure up a much wider variety of images:

- Adult workers learning from each other and from their supervisors on the job.
- Classrooms filled with people of all ages working at computers.

- Video teleconferences that bring together teachers and learners from across the state, and

- Students of all ages at home accessing information and gaining skills from the information superhighway.

In many areas, the distinction between learners and teachers will fade, as more of us teach the skills we have mastered, while, at the same time, we are learning new skills from others.

Teaching Firms

One of the newest concepts linking the traditional cultures of learning and teaching with the workplace is the Teaching Firm.

The Teaching Firm concept is rooted in our understanding of the high performance work organization. Research suggests that the *informal* teaching and learning that occurs in the workplace greatly enhances the ability of organizations to maximize the educational development and productivity of all employees. Teaching Firms focus on employees as assets to be developed and education and training as business investments. These firms stress the importance of recruiting and developing employees who possess the basic skills necessary for success and continued career growth.

Teaching Firms also emphasize the importance of aligning education and training opportunities with workplace requirements *as they are needed*, thereby reinforcing the connection between learning and application. Because Teaching Firms support a culture of continuous learning and improvement, they develop employees with the skills necessary to respond quickly to shifting consumer demands, new markets and competition. Incorporating the benefits of informal work-based teaching and learning with other proven instructional methods also provides a new model for how businesses and education and training systems can work together to provide an effective, performance-based workforce development system. The Teaching Firm is an innovative concept worthy of additional research.

WTECB and its business, labor, and education partners should participate in further research into Teaching Firms. This research will benefit businesses seeking to become high performance work organizations. As we understand what informal learning skills successful workers use, our workforce training and education system can develop curricula to teach those skills. Successful students will then be prepared to be successful workers in high performance work organizations.

The Most Urgently Needed Actions

Many changes in our attitudes and actions will be necessary to achieve the recommendations presented in this plan. To focus our efforts, we must prioritize the most crucial recommendations we have made. These will guide the agencies of the workforce training and education system in budget and policy planning. The most urgently needed actions are:

- ***WTECB and the other agencies and partners of the workforce training and education system will implement Performance Management for Continuous Improvement throughout the training system.*** Within two years, all workforce training and education programs will have formal continuous improvement efforts in place.

- ***In order to match labor market demand, the capacity of the workforce training and education system must increase.*** Within two years, the supply of workforce training at community and technical colleges should increase by 4,050 student FTEs. Within two years, the workforce development system must be implementing its One-Stop Career system. And within two years, the state must increase its support for school-to-work transition to assure capacity for work-related learning in the K–12 system.

- ***School-to-work transition partners must continue their scheduled work to implement a system that will improve the movement of students to postsecondary training and to employment in the careers of their choosing—and back to training again, as needed.*** In particular in the next two years, STWT partners will work with the State Board of Education as they define what follows the Certificate of Mastery.

- ***WTECB must lead the effort to ensure that all elements of the workforce training and education system are vertically integrated.*** Within two years, STWT partners in the K–12 system, those working to assure effective welfare-to-work transitions, those providing adult basic skills training, and the JTPA system should have established clear linkages with postsecondary education and training.

- ***WTECB must continue its work to increase public awareness about the importance of workforce training and education issues and initiatives.*** Within two years, WTECB will have completed an initial public awareness effort to increase public understanding and support of the goals and strategies of this plan.

- ***Workforce training and education agencies and partners must make welfare reform work.*** Within two years, these partners must develop programs that integrate basic skills and occupational skills training with work experience so that time-limited training for those on public assistance actually will enable them to become self-supporting.

- ***Workforce training and education partners must ensure firm connection between their work and economic development.*** In the next two years, economic development and workforce training programs should work together to establish and implement policies that target firms applying high performance work practices—practices that enhance and engage the skills and decision-making capacity of workers.

Conclusion

As we embark on the arduous task of bringing the recommendations of this plan to life, we are mindful of the high stakes involved in meeting the challenge of change. We know how much a family-wage job means to every adult worker. We understand the importance of well-educated employees to Washington business owners. And perhaps most compelling, we understand that failure to achieve the goals of this plan will cripple the economic prospects of the people of our state.

Knowing what we face, we are confident that Washington has the leadership, energy, and perseverance to make it to our destination: a world class workforce.

The Workforce Training and Education Coordinating Board does not discriminate or deny services on the basis of race, color, national origin, sex, age, religion, or disability.